

DA 3584

500



READY *to* SHIP
FROM STOCK

BRASS * COPPER * BRONZE

and Miscellaneous Products

CHASE BRASS & COPPER CO.
INCORPORATED

MILWAUKEE, WISC.

413 No. Second St.

Telephone DAily 3387

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From the collection of:

Alan O'Bright

500



CHASE BRASS AND COPPER WAREHOUSE STOCKS

The stocks of brass, copper and bronze listed in this book are maintained at nineteen individual Chase warehouses.

*Red stars * indicate items available immediately from the Chase warehouse nearest you.*

Those not marked can be shipped promptly from neighboring Chase warehouses.

January 1, 1938

Sheet
Brass

Sheet
Copper

Rods

Wire

Seamless
Tubes

Plumbing
Pipe

Pipe &
Tube
Fittings

Roofing
Products

Miscel.
Products

Miscel.
Tables

BALTIMORE, MD.

Lombard & South Sts.
Tel. PLaza 7777

BOSTON, MASS.

411 "D" St.
Tel. LIBerty 0129

CHICAGO, ILL.

1300 W. Harrison St.
Tel. HAYmarket 4550

CINCINNATI, OHIO

222 Post Square
Tel. PARKway 3326

CLEVELAND, OHIO

5005 Superior Ave.
Tel. HENDERSON 0932

DETROIT, MICH.

14480 Woodrow Wilson Ave.
Tel. TOWNsend 8-2939

HOUSTON, TEXAS

2014 Franklin Ave.
Tel. CAPITOL 1361

LOS ANGELES, CALIF.

210 S. Central Ave.
Tel. MICHigan 3886

MILWAUKEE, WISC.

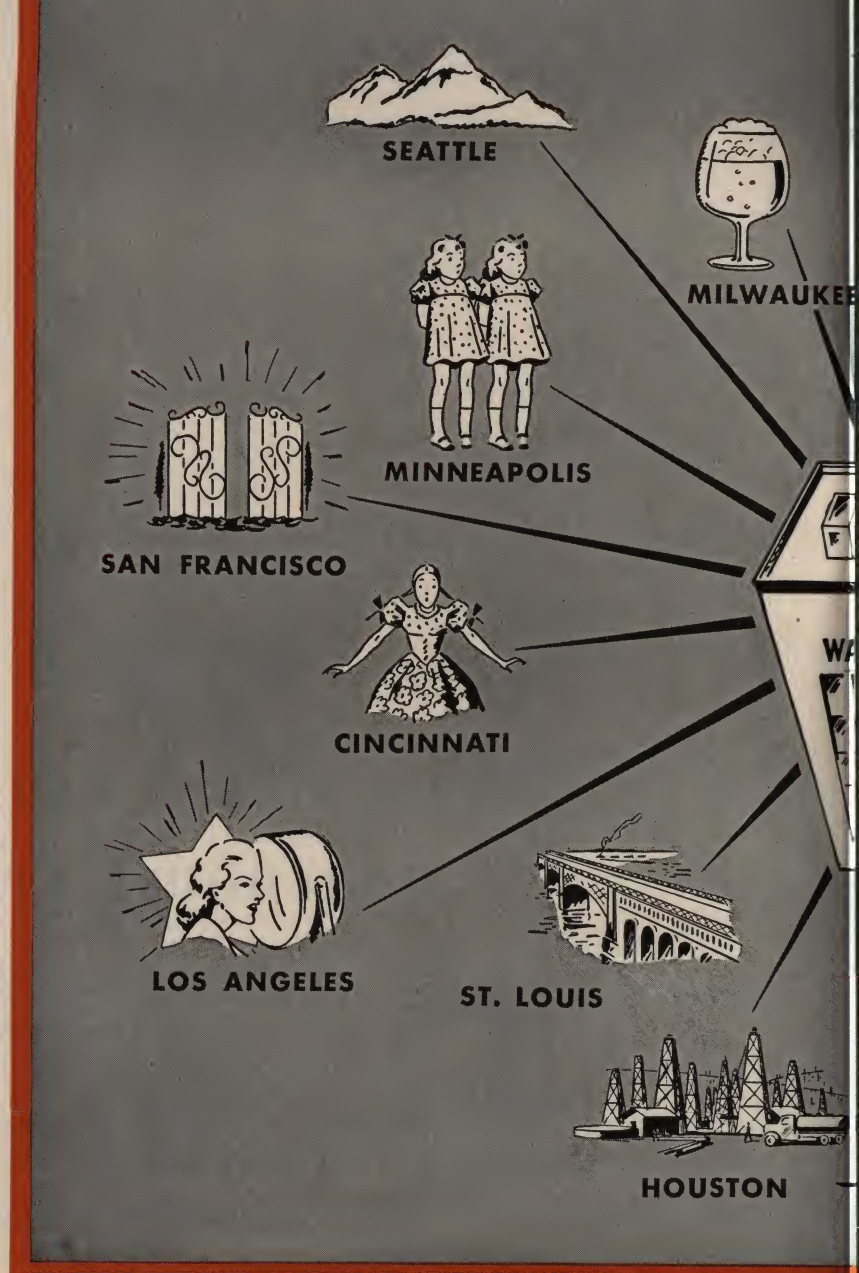
433 No. Second St.
Tel. DALy 3587

MINNEAPOLIS, MINN.

145 No. Tenth St.
Tel. Mpls. GENeva 4376
St. Pl. MIDway 6777

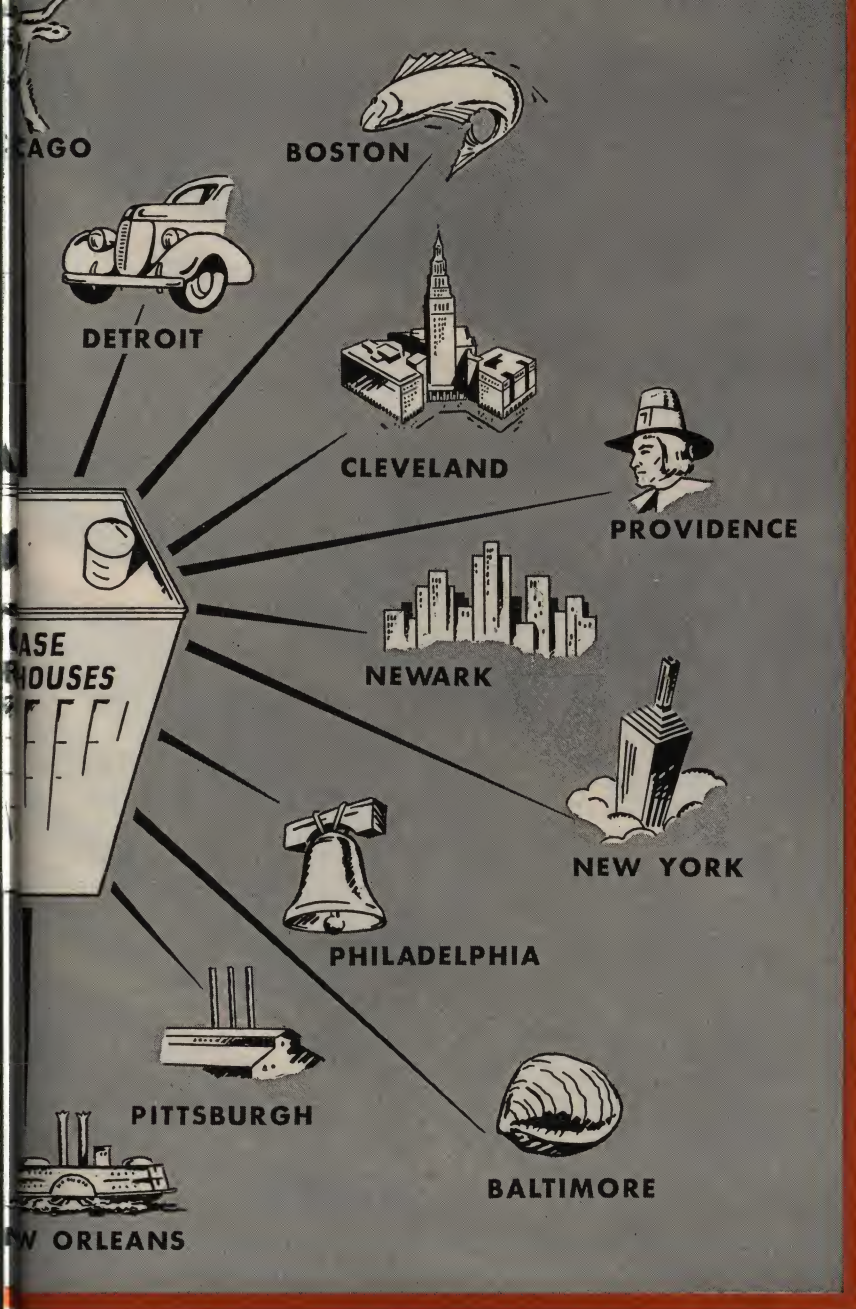
NEWARK, N. J.

188 Badger Ave.
BIGelow 8-1700



WHAT YOU WANT . . .

WHEN you need brass, copper or bronze, Chase Warehouse Service can generally give you what you want—when you want it. For there are nineteen Chase quick-delivery warehouses, located in the key cities from coast to coast.



NEW ORLEANS, LA.

429 Camp St.
Tel. RAYmond 5191

NEW YORK, N. Y.

80 Lafayette St.
Tel. WOrth 2-3600

PHILADELPHIA, PA.

46 No. Sixth St.
Tel. (Bell) LOMbard 8780
(Keystone) Main 5746

PITTSBURGH, PA.

855 West North Ave.
Tel. CEdar 7900

PROVIDENCE, R. I.

301 West Exchange St.
Tel. DEXter 2300

ST. LOUIS, MO.

314 No. Second St.
Tel. GARfield 4353

SAN FRANCISCO, CALIF.

680 Second St.
Tel. GARfield 7780

SEATTLE, WASH.

1957 First Ave., So.
Tel. SEneca 0164

Mills

CLEVELAND, OHIO

1155 Babbitt Road
Euclid Village

WATERBURY, CONN.

Chase Metal Works
Chase Rolling Mills

WHEN YOU WANT IT!

These stocks include sheets, rods, wire, tubes and a wide range of miscellaneous products such as rivets, burs, nails, tacks, nuts and bolts. Remember—if it's brass, copper or bronze you can usually depend on Chase for quick delivery.

CHASE
BRONZE AND COPPER SCREEN

WHERE SCREEN CLOTH IS MADE

CHASE ROLLING MILL

BRASS AND COPPER MILL IN CLEVELAND

BRASS AND COPPER MILL IN WATERBURY

GENERAL OFFICES IN WATERBURY

CHASE FACTORY



Backing up our Warehouses

These large mills and factories keep our warehouses supplied with brass and copper products. Steady streams of sheet, rod, wire, tube, fittings and about everything else in brass and copper, keep pouring in to fill the vacancies that yesterday's sales have made. That's why you can usually get immediate delivery of the exact size, temper or finish you need.



CHASE PRODUCTS INCLUDE

BRASS—COPPER—BRONZE

Sheets, tube, pipe, rods, bar, wire, bolts, nuts, screws, wire cloth, angles, channels, and fittings.

MISCELLANEOUS

PRODUCTS

In Brass - Copper - Bronze and Nickel Silver. Rivets - Burs - Washers - Escutcheon Pins - Cotter Pins - Anodes - Nails - Tacks - Roofing Products - Bearings. Also, Soldering Coppers - Copper Hammers - Sash Chains - Door Saddles - Ferrules - Copper Alloy - Terrazzo Strip.



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TUWZ8

Sheet
Brass



CHASE SHEETS AND ROLLS

HIGH BRASS

LOW BRASS

RED BRASS

TRIM BRONZE

OLYMPIC BRONZE

PHOSPHOR BRONZE

MUNTZ METAL

NICKEL-SILVER

COMMERCIAL BRONZE



FLAT HIGH BRASS SHEET

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

HALF HARD TEMPER

Lengths of 8 feet and Ends of 2 feet and over

THICKNESS in Inches, B. & S. Gage and Decimal Equivalent	WIDTHS IN INCHES									
	The approximate weight per lineal foot listed below indicates sizes carried in stock. All other sizes can be furnished promptly from mill.									
	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
$\frac{3}{32}$ " (.09375)	2.075	2.754	.....	4.150	.....	.....	.....	.....	.....
$\frac{1}{8}$ " (.125)	1.844	2.767	3.689	4.611	5.533	* 6.455	7.377	8.299	9.180	11.066
$\frac{5}{32}$ " (.15625)	6.917	.....	.....	.....	.....	.....
$\frac{3}{16}$ " (.1875)	* 4.14	* 5.526	* 6.91	* 8.28	* 9.673	.....	.....	.....	.....
$\frac{1}{4}$ " (.250)	* 5.533	7.38	.....	* 11.066	12.911	.....	.....	.....	.....
$\frac{5}{16}$ " (.3125)	13.833	.....	.....	.....	.....	.....
$\frac{3}{8}$ " (.375)	8.300	11.066	13.833	* 16.600	19.366	.....	.....	.....	.....
$\frac{1}{2}$ " (.500)	11.066	.....	.....	* 22.132	.....	.....	.....	.....	.....
$\frac{5}{8}$ " (.625)	27.666	.....	.....	.....	.....	.....
$\frac{3}{4}$ " (.750)	33.044	.....	.....	.....	.....	.....
No. 8 (.1285)	* 2.829	* 3.77	* 4.72	* 5.658	* 6.600	7.549	.....	.....	.....
No. 9 (.1144)	5.040	.....	.....	.....	.....	.....
No. 10 (.1019)	2.255	3.01	3.76	* 4.510	5.260	.....	.....	.....	.....
No. 11 (.09074)	2.011	* 2.682	3.35	* 4.022	* 4.694	.....	.....	.....	.....
No. 12 (.08081)	1.790	2.387	2.984	* 3.580	* 4.178	.....	.....	.....	.....
No. 13 (.07196)	1.591	.....	.....	* 3.182	.....	.....	.....	.....	.....
No. 14 (.06408)	.943	* 1.415	* 1.886	* 2.358	* 2.830	* 3.300	3.772	4.244	4.706	5.658
No. 15 (.05707)	1.260	.....	2.100	2.520	2.940	.....	.....	.....	.....
No. 16 (.05082)	1.127	* 1.503	* 1.879	* 2.254	* 2.630	3.006	3.382	3.760	4.509
No. 17 (.04562)995	1.326	1.658	* 1.990	2.320	.....	.....	.....	.....
No. 18 (.04030)891	* 1.188	* 1.485	* 1.782	* 2.078	2.376	2.672	2.969	3.564
No. 19 (.03589)794	1.058	1.323	1.588	.....	.....	.....	.....	.....
No. 20 (.03196)707	* .943	* 1.179	* 1.414	* 1.650	1.886	.....	.....	.....
No. 21 (.02846)840	.....	.....	.....	.....	.....	.....	.....
No. 22 (.02535)559	.....	.932	* 1.118	1.304	.....	.....	.....	.....
No. 23 (.02257)	1.000	.....	.....	.....	.....	.....
No. 24 (.02010)740	* .888	.....	.....	1.332	.....	.....
No. 26 (.01594)	* .702	.....	.....	.....	.....	.....
No. 28 (.01264)557	.....	.....	.....	.....	.....



FLAT HIGH BRASS SHEET

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses

HALF HARD TEMPER

Exact Sizes as Listed

Size of Sheet	Thickness in Inches, B. & S. Gage and Decimal Equivalent	Approximate Total Weight of Sheet	Size of Sheet	Thickness in Inches, B. & S. Gage and Decimal Equivalent	Approximate Total Weight of Sheet
20" x 60"	No. 8 (.1285)	47.18	24" x 48"	No. 28 (.0126)	2.90
20" x 60"	No. 11 (.094)	33.52	30" x 60"	$\frac{3}{8}$ " (.375)	206.50
20" x 60"	No. 14 (.062)	22.77	30" x 60"	$\frac{1}{4}$ " (.250)	137.75
20" x 60"	No. 20 (.032)	11.75	30" x 60"	$\frac{3}{16}$ " (.1875)	103.28
24" x 48"	$\frac{3}{8}$ " (.375)	132.16	30" x 60"	$\frac{1}{8}$ " (.125)	68.85
24" x 48"	$\frac{1}{4}$ " (.250)	88.16	30" x 60"	$\frac{3}{32}$ " (.09375)	51.64
24" x 48"	$\frac{3}{16}$ " (.1875)	66.10	30" x 60"	No. 14 (.06408)	35.31
24" x 48"	$\frac{1}{8}$ " (.125)	44.06	30" x 60"	No. 16 (.05082)	27.98
24" x 48"	$\frac{3}{32}$ " (.09375)	33.05	30" x 60"	No. 20 (.03196)	17.63
24" x 48"	$\frac{1}{16}$ " (.0625)	20.86	30" x 60"	No. 24 (.02010)	11.13
24" x 48"	No. 14 (.06408)	22.60	30" x 60"	No. 26 (.01594)	8.78
24" x 48"	No. 17 (.04526)	15.97	36" x 96"	$\frac{1}{8}$ " (.125)	132.19
24" x 48"	No. 20 (.03196)	11.28	36" x 96"	$\frac{3}{32}$ " (.09375)	99.14
24" x 48"	No. 22 (.02535)	8.92	36" x 96"	$\frac{1}{16}$ " (.0625)	66.10
24" x 48"	No. 24 (.02010)	7.29	36" x 96"	$\frac{1}{32}$ " (.03125)	33.20
24" x 48"	No. 26 (.01594)	5.60			

Half hard strip brass—8 to 11 foot mill lengths.
Widths of 3"—3 $\frac{1}{4}$ "—4 $\frac{3}{8}$ "—all .0508 thick.

LEADED HALF HARD†

Untrimmed Edges Mill Lengths of 8 to 12 Feet

Width of Sheet	Thickness in Inches and Decimal Equivalent	Approximate Weight Per Lineal Ft.
10"	$\frac{1}{16}$ " (.0625)	2.295
10"	$\frac{3}{32}$ " (.09375)	3.442
10"	$\frac{1}{8}$ " (.125)	4.611
10"	$\frac{3}{16}$ " (.1875)	6.917
10"	$\frac{1}{4}$ " (.250)	9.222
10"	$\frac{5}{16}$ " (.3125)	11.528
10"	$\frac{3}{8}$ " (.375)	13.833
10"	$\frac{1}{2}$ " (.500)	18.444

†Leaded Half Hard—Lead is added so that it will cut and machine more readily. It is practical for any purpose where free cutting properties are needed but it is not suitable for drawing or spinning. (Surface not suitable for engraving purposes.)

SPRING TEMPER‡

Lengths of 6 to 8 Feet

Width of Sheet	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight per Lineal Ft.
8"	No. 14 (.06408)	1.883
8"	No. 16 (.05082)	1.492
8"	No. 18 (.04030)	1.184
12"	No. 8 (.1285)	5.662
12"	No. 11 (.09074)	3.997
12"	No. 12 (.08081)	3.560
12"	No. 14 (.06408)	2.825
12"	No. 16 (.05082)	2.238
12"	No. 18 (.04030)	1.776
12"	No. 20 (.03196)	1.410
12"	No. 22 (.02535)	1.115

‡Spring Temper—This material is finished by rolling 8 B. & S. Gage Nos. hard. It is sufficiently hard and elastic to return to its original position after deflection. Used extensively for springs.



HIGH BRASS IN ROLLS

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses

HALF HARD TEMPER

Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.	Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
6"	No. 16 (.05082)	1.119	10"	No. 24 (.02010)	.7381
6"	No. 18 (.04030)	.891	10"	No. 26 (.01594)	.5838
6"	No. 20 (.03195)	.7050	12"	No. 18 (.04030)	1.776
6"	No. 22 (.02535)	.5574	12"	No. 20 (.03196)	1.410
6"	No. 23 (.02257)	.4979	12"	No. 21 (.02846)	1.256
6"	No. 24 (.02010)	.4428	12"	No. 22 (.02535)	1.115
6"	No. 25 (.01790)	.3944	12"	No. 23 (.02257)	.9958
6"	No. 26 (.01594)	.3503	12"	No. 24 (.02010)	.8857
6"	No. 28 (.01264)	.2776	12"	No. 25 (.01790)	.7887
6"	No. 36 (.005)	.1105	12"	No. 26 (.01594)	.7006
8"	No. 20 (.03196)	.9400	12"	No. 28 (.01264)	.5552
8"	No. 22 (.02535)	.7432	12"	No. 30 (.01003)	.4406
8"	No. 24 (.02010)	.5905	12"	No. 32 (.00795)	.3536
8"	No. 26 (.01594)	.4671	14"	No. 20 (.03196)	1.6429
8"	No. 28 (.01264)	.3701	14"	No. 22 (.02535)	1.304
10"	No. 20 (.03196)	1.175	14"	No. 24 (.02010)	1.036
10"	No. 22 (.02535)	.9290	14"	No. 26 (.01594)	.820

HALF HARD HIGH BRASS

Slit Edges in Coils

Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.	Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
1/4"	No. 20 (.03196)	.0294	5/8"	No. 20 (.03196)	.0734
3/8"	No. 16 (.05082)	.0700	5/8"	No. 22 (.02535)	.0581
3/8"	No. 18 (.04030)	.0555	5/8"	No. 24 (.02010)	.0461
3/8"	No. 20 (.03196)	.0441	5/8"	No. 26 (.01594)	.0365
3/8"	No. 22 (.02535)	.0348	3/4"	No. 16 (.05082)	.1399
3/8"	No. 24 (.02010)	.0277	3/4"	No. 18 (.04030)	.1110
3/8"	No. 26 (.01594)	.0219	3/4"	No. 20 (.03196)	.0881
1/2"	No. 16 (.05082)	.0933	3/4"	No. 22 (.02535)	.0697
1/2"	No. 18 (.04030)	.0740	3/4"	No. 24 (.02010)	.0554
1/2"	No. 20 (.03196)	.0588	3/4"	No. 26 (.01594)	.0438
1/2"	No. 22 (.02535)	.0465	1"	No. 16 (.05082)	.1865
1/2"	No. 24 (.02010)	.0369	1"	No. 18 (.04030)	.1480
1/2"	No. 26 (.01594)	.0292	1"	No. 20 (.03196)	.1175
5/8"	No. 16 (.05082)	.1166	1"	No. 22 (.02535)	.0929
5/8"	No. 18 (.04030)	.0925	1"	No. 24 (.02010)	.0738



HALF HARD HIGH BRASS

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses

Slit Edges in Coils

Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.	Width of Roll	Thickness in Inches, B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
1"	No. 26 (.01594)	.0584	1 3/4"	No. 16 (.05082)	.3264
1 1/4"	No. 16 (.05082)	.2331	1 3/4"	No. 18 (.04030)	.2590
1 1/4"	No. 18 (.04030)	.1850	1 3/4"	No. 20 (.03196)	.2056
1 1/4"	No. 20 (.03196)	.1469	1 3/4"	No. 22 (.02535)	.1626
1 1/4"	No. 22 (.02535)	.1161	1 3/4"	No. 24 (.02010)	.1295
1 1/4"	No. 24 (.02010)	.0923	* 2"	1/8" (.125)	.918
1 1/4"	No. 26 (.01594)	.0730	2"	No. 16 (.05082)	.3731
1 1/2"	No. 16 (.05082)	.2798	2"	No. 18 (.04030)	.2960
1 1/2"	No. 18 (.04030)	.2220	2"	No. 20 (.03196)	.2350
1 1/2"	No. 20 (.03196)	.1763	2"	No. 22 (.02535)	.1858
1 1/2"	No. 22 (.02535)	.1394	2"	No. 24 (.02010)	.1476
1 1/2"	No. 24 (.02010)	.1107	2"	No. 26 (.01594)	.1168*
1 1/2"	No. 26 (.01594)	.0876			

HARD TEMPER Width of Roll—6 inches; Thickness in B. & S. Gage and Decimal Equivalent—No. 36 (.005); Approximate Weight Per Lineal Foot—.1105.

FLAT ETCHING BRASS

Lengths of 8 Feet

Width of Sheet	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
10 1/4"	No. 22 (.02535)	.9522
10 1/4"	No. 24 (.02010)	.7664
10 1/4"	No. 26 (.01594)	.5984
12"	No. 22 (.02535)	1.115
12"	No. 24 (.02010)	.888
12"	No. 26 (.01594)	.702

PLATER'S BRASS

In Rolls of About 10 Pounds

Width	Thickness
6"	†No. 00
6"	†No. 0
6"	.002"
6"	.003"
6"	.004"

†Signifies Trade Number, not Gage Number.

BEST QUALITY BRAZING BRASS

Blued Soft Anneal

Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
* 25"	No. 18 (.0403)	3.7479
* 28"	No. 18 (.0403)	4.1976
* 10"	No. 20 (.032)	1.1904
* 12"	No. 20 (.032)	1.4284
* 14"	No. 20 (.032)	1.6665
* 16"	No. 20 (.032)	1.9046
* 20"	No. 20 (.032)	2.3808
* 6"	No. 21 (.0285)	.6361
* 8"	No. 21 (.0285)	.8481
* 10"	No. 21 (.0285)	1.0602
* 14"	No. 21 (.0285)	1.4842
* 12"	No. 22 (.0254)	1.1338
* 9 1/2"	No. 23 (.0226)	.7986
* 12"	No. 23 (.0226)	1.0088
* 14"	No. 23 (.0226)	1.1770

Chase Best Quality Brazing Brass (75-25) is adapted for deep drawing and spinning. And because it also has tone and good brazing qualities it is used extensively in the manufacture of musical instruments.



SPECIAL SHEET AND ROLL BRASS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

ENGRAVER'S BRASS

Half Hard Temper—Lengths of 5 to 8 Feet

Width of Sheet	Thickness in Inches and Decimal Equivalent	Approximate Weight Per Lineal Ft.
8"	$\frac{3}{8}$ " (.375)	11.07
10"	$\frac{1}{4}$ " (.250)	9.21
10"	$\frac{3}{8}$ " (.375)	13.833
12"	$\frac{1}{16}$ " (.0625)	2.767
12"	(.081)	3.586
12"	$\frac{3}{32}$ " (.09375)	4.150
* 12"	$\frac{1}{8}$ " (.125)	5.533
12"	$\frac{5}{32}$ " (.15625)	6.917
* 12"	$\frac{3}{16}$ " (.1875)	8.300
12"	$\frac{7}{32}$ " (.21875)	9.650
* 12"	$\frac{1}{4}$ " (.250)	11.067
* 12"	$\frac{5}{16}$ " (.3125)	13.833
* 12"	$\frac{3}{8}$ " (.375)	16.600
12"	$\frac{7}{16}$ " (.4375)	19.366
12"	$\frac{1}{2}$ " (.500)	22.133
14"	$\frac{1}{8}$ " (.125)	6.455
14"	$\frac{5}{32}$ " (.15625)	8.056
14"	$\frac{3}{16}$ " (.1875)	9.683
14"	$\frac{1}{4}$ " (.250)	12.911
14"	$\frac{5}{16}$ " (.3125)	16.139
14"	$\frac{3}{8}$ " (.375)	19.366
14"	$\frac{1}{2}$ " (.500)	25.821
14"	$\frac{3}{4}$ " (.750)	38.682
14"	1" (1.00)	51.576

SHIM BRASS

Soft Temper

Width	Thickness in Inches
* 6"	.001"
* 6"	.0015"
* 6"	.002"
* 6"	.003"
6"	.0039"
* 6"	.004"
* 6"	.005"
Half Hard	
6"	.001
6"	.0015"
Hard Temper	
6"	.001"
6"	.0015"
6"	.002"
6"	.003"
6"	.004"
6"	.005"
6"	.007"
6"	.008"
6"	.009"
6"	.010"

FLAT GILDING METAL†

Soft Temper

Width of Sheet	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
6"	No. 14 (.06408)	1.481
6"	No. 15 (.05707)	1.319
12"	No. 12 (.08081)	3.749
12"	No. 13 (.07196)	3.331

†Gilding Metal in Rolls—We carry in stock Gilding Metal in Rolls of about 75 lbs., 6 inches wide, Nos. 14 and 16, B. and S. Gage.

RED BRASS SHEET

Soft Temper—Lengths of About 8 Feet

Width of Sheet	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight of Sheet
6"	No. 10 (.1019)	17.96
6"	No. 12 (.08081)	14.24
6"	No. 14 (.06408)	11.30
6"	No. 16 (.05082)	8.95
6"	No. 18 (.04030)	7.10
6"	No. 20 (.03196)	5.64
12"	No. 20 (.03196)	11.264



RED BRASS SHEET†

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

SOFT TEMPER

Lengths of 8 feet and ends.

12" widths #14 #16 #18 #20

Lengths of 6 to 8 feet.

Carried in 6" widths #18 #20

Lengths of 8 feet exact.

Carried in No. 14 gage in widths of 10", 12", 16", 20", 24"

And No. 16 gage in widths of 10", 12", 16", 20", 24"

Lengths of 8 feet and ends.

Carried in 12" widths in sizes 1/8", #11

Carried in 24" widths in sizes 1/8", #11 #12

Lengths of 7 to 10 feet.

12" widths in gages #14 #16 #18

14" widths in gages #16 #18

16" widths in gages #16 #18

18" widths in gages #16 #18

†Red Brass, also called Rich Low Brass is 85% copper—15% zinc.

SOFT RED BRASS IN ROLLS

Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.	Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
6"	No. 13 (.0720)	1.631	6"	No. 28 (.02164)	.2785
6"	No. 14 (.0641)	1.454	6"	No. 30 (.01003)	.2210
6"	No. 16 (.0508)	1.152	6"	No. 32 (.0080)	.181
6"	No. 17 (.0453)	1.027	10"	No. 18 (.04030)	1.523
6"	No. 18 (.0403)	.914	10"	No. 20 (.03196)	1.179
6"	No. 19 (.0359)	.814	10"	No. 22 (.02535)	.932
6"	No. 20 (.032)	.726	10"	No. 24 (.02010)	.759
6"	No. 21 (.0285)	.646	10"	No. 26 (.01594)	.6025
6"	No. 22 (.0254)	.576	10"	No. 31 (.0089)	.497
6"	No. 23 (.0226)	.513	12"	No. 20 (.03196)	1.479
6"	No. 24 (.0201)	.456	12"	No. 22 (.02535)	1.149
6"	No. 25 (.0179)	.406	12"	No. 24 (.02010)	.9117
6"	No. 26 (.0159)	.361	12"	No. 26 (.01594)	.7230
6"	No. 27 (.0142)	.322			

SOFT LOW BRASS IN ROLLS

Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.	Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
6"	No. 14 (.0641)	1.444	6"	No. 25 (.0179)	.403
6"	No. 16 (.0508)	1.145	6"	No. 26 (.0159)	.358
6"	No. 17 (.0453)	1.011	6"	No. 27 (.0142)	.320
6"	No. 18 (.0403)	.908	6"	No. 28 (.0126)	.284
6"	No. 19 (.0359)	.809	6"	No. 30 (.0100)	.225
6"	No. 20 (.032)	.721	6"	No. 32 (.0080)	.180
6"	No. 21 (.0285)	.642	10"	No. 18 (.04030)	1.480
6"	No. 22 (.0254)	.572	10"	No. 20 (.03196)	1.175
6"	No. 23 (.0226)	.509	10"	No. 22 (.02535)	.929
6"	No. 24 (.0201)	.453	10"	No. 24 (.02010)	.7381



COMMERCIAL BRONZE SHEET

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

HALF HARD TEMPER

Random Lengths of 7 to 9 Feet

Width of Sheet	Thickness in Inches, B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.	Width of Sheet	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
6"	No. 14 (.06408)	1.473	12"	No. 18 (.04030)	1.855
6"	No. 16 (.05082)	1.174	12"	No. 20 (.03196)	1.473
8"	$\frac{1}{8}$ " (.125)	3.837	12"	No. 22 (.02535)	1.164
8"	$\frac{3}{16}$ " (.1875)	5.756	12"	No. 24 (.020)	.8857
8"	No. 8 (.1285)	3.871	12"	No. 26 (.01594)	.7372
8"	No. 11 (.09074)	2.794	14"	No. 12 (.08081)	4.352
8"	No. 14 (.06408)	1.965	14"	No. 14 (.06408)	3.437
8"	No. 16 (.05082)	1.565	14"	No. 16 (.05082)	2.740
8"	No. 18 (.04030)	1.238	16"	No. 14 (.06408)	3.930
10"	No. 8 (.1285)	4.72	16"	No. 16 (.05082)	3.130
10"	No. 14 (.06408)	2.465	18"	No. 8 (.1285)	8.712
10"	No. 16 (.05082)	1.957	18"	No. 16 (.05082)	3.522
10"	No. 18 (.04030)	1.546	†20"	No. 14 (.06408)	4.912
12"	$\frac{1}{8}$ " (.125)	5.756	†20"	No. 16 (.05082)	3.914
12"	$\frac{3}{16}$ " (.1875)	8.632	†24"	No. 10 (.1019)	9.393
12"	$\frac{1}{4}$ " (.250)	11.503	†24"	No. 11 (.09074)	8.379
12"	No. 8 (.1285)	5.8014	†24"	No. 12 (.08081)	7.461
12"	No. 11 (.09074)	4.190	†24"	No. 14 (.06408)	5.892
12"	No. 14 (.06408)	2.946	†24"	No. 16 (.05082)	4.697
12"	No. 16 (.05082)	2.348	†30"	No. 14 (.06408)	7.366

†Carried in stock in lengths of 8 ft. exact.

SOFT TEMPER

Lengths of 8 Feet and Ends

Width of Sheet	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.	Width of Sheet	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
12"	No. 14 (.06408)	2.949	12"	No. 22 (.02535)	1.168
12"	No. 16 (.05082)	2.341	12"	No. 24 (.020)	.921
12"	No. 20 (.03196)	1.474			

CHAMET BRONZE SHEET

Cold Rolled

Size of Sheet	Thickness in Inches and Decimal Equivalent	Approximate Total Weight of Sheet
24" x 96"	$\frac{1}{2}$ " (.500)	350.208
24" x 96"	$\frac{1}{4}$ " (.250)	175.104

WEIGHTS

All weights given on commercial and trim bronze are theoretical, based on the specific gravity of pure copper. Commercial variations from these tables must be expected in practice.



OLYMPIC BRONZE

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

OLYMPIC BRONZE IN ROLLS

Type "A"

Spring Temper—In 50 Pound Rolls

Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
6"	No. 20 (.032)	.714
6"	No. 21 (.028)	.625
6"	No. 22 (.025)	.558
6"	No. 23 (.0225)	.502
6"	No. 24 (.0201)	.450
6"	No. 25 (.0179)	.3995
6"	No. 26 (.0159)	.355
6"	No. 27 (.0142)	.317
6"	No. 28 (.0126)	.281
6"	No. 30 (.010)	.223
6"	No. 32 (.008)	.178
6"	No. 34 (.0063)	.140
6"	No. 36 (.005)	.111

OLYMPIC BRONZE SHEET

Type "A"

Spring Temper—In 6 to 8 Foot Lengths

Width of Sheet	Thickness in Inches, B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
6"	$\frac{1}{8}$ " (.125)	2.790
6"	No. 12 (.08081)	1.803
6"	No. 14 (.06408)	1.397
6"	No. 16 (.0508)	1.133
6"	No. 17 (.0453)	1.011
6"	No. 18 (.0403)	.899
6"	No. 19 (.0359)	.801

OLYMPIC BRONZE STRIP

In Coils

Olympic Bronze Strip—Spring temper is carried in stock in coils $\frac{5}{8}$ " wide x .032" thick.

ACID DIPPED TRIM BRONZE SHEET

QUARTER HARD TEMPER

Patent Leveled and Resquared

Size of Sheet	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Total Weight of Sheet	Size of Sheet	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Total Weight of Sheet
12" x 96"	No. 20 (.03196)	11.57	18" x 120"	No. 23 (.02257)	15.32
13" x 87"	No. 20 (.03196)	11.35	20" x 96"	No. 20 (.03196)	19.28
13" x 96"	No. 23 (.02257)	8.85	20" x 96"	No. 23 (.02257)	13.62
14" x 96"	No. 20 (.03196)	13.50	20" x 120"	No. 16 (.05082)	38.24
14" x 96"	No. 23 (.02257)	9.53	20" x 120"	No. 23 (.02257)	17.02
14" x 120"	No. 16 (.05082)	26.83	24" x 96"	No. 16 (.05082)	36.81
14" x 120"	No. 20 (.03196)	16.87	24" x 96"	No. 20 (.03196)	23.13
14" x 120"	No. 23 (.02257)	11.79	24" x 96"	No. 23 (.02257)	16.34
16" x 96"	No. 23 (.02257)	10.89	24" x 120"	No. 20 (.03196)	28.92
16" x 120"	No. 16 (.05082)	30.66	24" x 120"	No. 23 (.02257)	20.22
16" x 120"	No. 20 (.03196)	19.10	30" x 96"	No. 20 (.03196)	28.92
16" x 120"	No. 23 (.02257)	13.62	30" x 120"	No. 20 (.03196)	36.16
18" x 96"	No. 20 (.03196)	17.35	36" x 96"	No. 16 (.05082)	55.19
18" x 120"	No. 20 (.03196)	21.69	36" x 96"	No. 20 (.03196)	34.71



ACID DIPPED TRIM BRONZE IN ROLLS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

SOFT TEMPER

Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.	Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
12"	No. 25 (.01790)	.812	14"	No. 24 (.02010)	1.063
12"	No. 27 (.01420)	.638	14"	No. 26 (.01594)	.841
* 12"	No. 36 (.0050)	.227	14"	No. 28 (.01264)	.667

PHOSPHOR BRONZE SHEET

GRADE "A"—SPRING TEMPER

Lengths of About 6 Feet

Width of Sheet	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.	Width of Sheet	Thickness in Inches, B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
6"	No. 12 (.08081)	1.884	6"	No. 18 (.04030)	.937
6"	No. 14 (.06408)	1.488	6"	No. 19 (.03589)	.835
6"	No. 16 (.05082)	1.186	6"	$\frac{1}{8}$ " (.125)	2.907
6"	No. 17 (.04526)	1.047			

PHOSPHOR BRONZE IN ROLLS

GRADE "A"—SPRING TEMPER

Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.	Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
6"	No. 18 (.04030)	.937	* 6"	No. 26 (.01594)	.370
6"	No. 19 (.03589)	.835	6"	No. 27 (.0142)	.330
* 6"	No. 20 (.03196)	.744	* 6"	No. 28 (.01264)	.2930
6"	No. 21 (.02846)	.663	* 6"	No. 30 (.01003)	.2326
* 6"	No. 22 (.02535)	.588	6"	No. 32 (.00795)	.1861
6"	No. 23 (.02257)	.526	6"	No. 34 (.006305)	.1465
* 6"	No. 24 (.02010)	.468	6"	No. 36 (.005)	.1163
6"	No. 25 (.0179)	.416	6"	No. 40 (.0031)	.0721

COLD ROLLED MANGANESE BRONZE SHEET

Size of Sheet	Thickness in Inches and Decimal Equivalent	Approximate Weight Per Lineal Ft.	Size of Sheet	Thickness in Inches and Decimal Equivalent	Approximate Weight Per Lineal Ft.
24" x 48"	$\frac{3}{4}$ " (.0469)	16.362	24" x 48"	$\frac{1}{32}$ " (.0312)	10.908



MUNTZ METAL SHEETS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

COLD ROLLED

Exact Sizes as Listed

Size of Sheet	Thickness in Inches, B. & S. Gage and Decimal Equivalent	Approximate Total Weight of Sheet	Size of Sheet	Thickness in Inches, B. & S. Gage and Decimal Equivalent	Approximate Total Weight of Sheet
24" x 48"	$\frac{1}{2}$ " (.500)	175.104	30" x 60"	$\frac{1}{4}$ " (.250)	137.75
24" x 48"	$\frac{3}{8}$ " (.375)	132.16	30" x 60"	$\frac{3}{16}$ " (.1875)	103.28
24" x 48"	$\frac{5}{16}$ " (.3125)	108.16	30" x 60"	$\frac{1}{8}$ " (.125)	68.85
24" x 48"	$\frac{1}{4}$ " (.250)	88.16	30" x 60"	$\frac{3}{32}$ " (.0937)	51.64
24" x 48"	$\frac{3}{16}$ " (.1875)	66.10	30" x 60"	$\frac{1}{32}$ " (.0312)	17.29
24" x 48"	$\frac{1}{8}$ " (.125)	44.06	30" x 60"	No. 14 (.064)	35.31
24" x 48"	No. 10 (.1019)	36.10	30" x 60"	No. 16 (.0508)	27.98
24" x 48"	$\frac{3}{32}$ " (.0937)	33.05	30" x 60"	No. 17 (.0452)	25.05
24" x 48"	No. 12 (.0808)	28.48	30" x 60"	No. 18 (.0403)	22.05
24" x 48"	No. 14 (.064)	22.60	30" x 60"	No. 19 (.0358)	19.86
24" x 48"	No. 16 (.0508)	17.90	30" x 60"	No. 20 (.0319)	17.63
24" x 48"	No. 17 (.0452)	15.97	30" x 60"	No. 21 (.0284)	15.75
24" x 48"	No. 18 (.0403)	14.21	30" x 60"	No. 24 (.0201)	11.13
24" x 48"	No. 19 (.0358)	12.71	30" x 96"	$\frac{1}{8}$ " (.125)	110.16
24" x 48"	No. 20 (.0319)	11.28	30" x 96"	No. 12 (.0808)	71.56
24" x 48"	No. 21 (.0284)	10.08	30" x 96"	$\frac{1}{16}$ " (.0625)	55.36
24" x 48"	No. 22 (.0253)	8.92	30" x 96"	$\frac{1}{32}$ " (.0312)	27.54
24" x 48"	No. 24 (.0201)	7.29	36" x 96"	$\frac{1}{4}$ " (.250)	259.68
24" x 96"	$\frac{3}{8}$ " (.375)	259.68	36" x 96"	$\frac{3}{16}$ " (.1875)	194.69
24" x 96"	$\frac{1}{4}$ " (.250)	173.12	36" x 96"	$\frac{1}{8}$ " (.125)	132.19
24" x 96"	$\frac{3}{16}$ " (.1875)	129.79	36" x 96"	No. 10 (.1019)	108.29
24" x 96"	$\frac{1}{8}$ " (.125)	88.13	36" x 96"	$\frac{3}{32}$ " (.0937)	99.14
24" x 96"	No. 10 (.1019)	72.19	36" x 96"	No. 12 (.0808)	85.87
24" x 96"	No. 12 (.0808)	57.25	36" x 96"	$\frac{1}{16}$ " (.0625)	66.10
24" x 96"	No. 14 (.06408)	44.36	36" x 96"	No. 14 (.064)	68.11
24" x 96"	$\frac{1}{16}$ " (.0625)	44.29	36" x 96"	No. 20 (.03196)	33.96
24" x 96"	$\frac{1}{32}$ " (.03125)	21.63			



CASTING BRASS

All Chase Brass is cast in electric furnaces which give the metal a fine, well mixed composition, the closed furnaces preventing the escape of spelter and possible changing of the brass alloy. The furnace is tilted hydraulically and the molten metal is poured into the moulds.



18% NICKEL SILVER

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

IN ROLLS—SOFT TEMPER

Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.	Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
6"	No. 12 (.08081)	.....	6"	No. 30 (.01003)	.2282
6"	No. 14 (.06408)	1.4585	6"	No. 36 (.005)	.1139
6"	No. 16 (.05082)	1.1570	8"	No. 16 (.05082)	1.5426
6"	No. 17 (.04526)	1.0300	8"	No. 18 (.04030)	1.2286
6"	No. 18 (.04030)	.9215	8"	No. 20 (.03196)	.9700
6"	No. 19 (.03589)	.8170	8"	No. 21 (.02846)	.8640
6"	No. 20 (.03196)	.7275	8"	No. 22 (.02535)	.7693
6"	No. 22 (.02535)	.5770	8"	No. 24 (.02010)	.6136
6"	No. 23 (.02257)	.....	8"	No. 26 (.01594)	.4839
6"	No. 24 (.02010)	.4602	8"	No. 28 (.01264)	.3837
6"	No. 25 (.01790)	.4075	8"	No. 30 (.01003)	.3095
6"	No. 26 (.01594)	.3629	8"	No. 34 (.006305)	.1951
6"	No. 28 (.01264)	.2878	8"	No. 36 (.005)	.1518

IN FLAT SHEETS

Soft Temper—Lengths of 6 Feet

Width of Sheet	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Total Weight of Sheet
8"	No. 12 (.08081)	14.846
8"	No. 14 (.06408)	11.731
8"	No. 16 (.05082)	9.256
8"	No. 18 (.0403)	7.338

10% Nickel Silver

10% Nickel Silver is carried in stock in Rolls—Soft Temper—in 6" widths in the following B. & S. Gage thicknesses: 12, 14, 18, 20, 22, 24.

5% Nickel Silver

5% Nickel Silver is carried in stock in Rolls—Soft Temper—in one size, 6" wide x No. 22 B. & S. Gage.

IN ROLLS

Spring Temper

Width of Roll	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Weight Per Lineal Ft.
8"	No. 20 (.03196)	.9700
8"	No. 22 (.02535)	.7693
8"	No. 24 (.02010)	.6136
8"	No. 26 (.01594)	.4839
8"	No. 28 (.01264)	.3837
8"	No. 30 (.01003)	.3043

Special 18% White Nickel Silver

Special 18% White Nickel Silver is carried in stock in Rolls—Soft Temper—in 6" widths in the following B. & S. Gage thicknesses: 12, 13, 16, 20, 22, 23, 24.

Sheet
Copper



CHASE COPPER SHEETS AND ROLLS

SOFT PLAIN FLAT SHEETS

COLD ROLLED SHEETS

TINNED COPPER

POLISHED COPPER

UTILITY STRIP COPPER

COPPER IN ROLLS

LEAD COATED COPPER



SHEET COPPER

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

SOFT IN PLAIN FLAT SHEETS

Size of Sheet in Inches	Weight Per Sq. Ft.	Approximate Total Weight of Sheet	Size of Sheet in Inches	Weight Per Sq. Ft.	Approximate Total Weight of Sheet
12" x 96"	16 oz.	8.00 lbs.	30" x 60"	28 oz.	21.88 lbs.
14" x 48"	14 oz.	4.08 lbs.	* 30" x 60"	32 oz.	25.00 lbs.
14" x 48"	16 oz.	4.67 lbs.	30" x 60"	38 oz.	29.69 lbs.
15" x 96"	16 oz.	10.00 lbs.	30" x 60"	40 oz.	31.25 lbs.
16" x 72"	10 oz.	5.00 lbs.	* 30" x 60"	48 oz.	37.50 lbs.
18" x 96"	14 oz.	11.50 lbs.	30" x 60"	51 oz.	39.84 lbs.
18" x 96"	16 oz.	12.00 lbs.	30" x 60"	56 oz.	43.75 lbs.
20" x 96"	14 oz.	11.67 lbs.	30" x 60"	4 lbs.	50.00 lbs.
* 20" x 96"	16 oz.	13.33 lbs.	30" x 60"	4½ lbs.	56.25 lbs.
22" x 96"	16 oz.	14.67 lbs.	30" x 60"	5 lbs.	62.50 lbs.
24" x 60"	⅜" thick	86.80 lbs.	30" x 60"	6 lbs.	75.00 lbs.
24" x 60"	¼" thick	115.75 lbs.	30" x 60"	10 lbs.†	10.00 lbs.
24" x 96"	14 oz.	14.00 lbs.	30" x 60"	20 lbs.†	20.00 lbs.
* 24" x 96"	16 oz.	16.00 lbs.	30" x 60"	25 lbs.†	25.00 lbs.
24" x 96"	18 oz.	18.00 lbs.	30" x 60"	30 lbs.†	30.00 lbs.
24" x 120"	16 oz.	20.00 lbs.	* 30" x 60"	35 lbs.†	35.00 lbs.
26" x 96"	16 oz.	17.33 lbs.	30" x 60"	40 lbs.†	40.00 lbs.
28" x 96"	14 oz.	16.33 lbs.	30" x 60"	50 lbs.†	50.00 lbs.
28" x 96"	16 oz.	18.67 lbs.	30" x 60"	⅜" thick	54.25 lbs.
30" x 60"	8 oz.	6.25 lbs.	* 30" x 60"	⅛" thick	72.34 lbs.
30" x 60"	10 oz.	7.81 lbs.	30" x 60"	100 lbs.†	100.00 lbs.
30" x 60"	12 oz.	9.38 lbs.	30" x 60"	¼" thick	144.68 lbs.
30" x 60"	13 oz.	10.15 lbs.	30" x 72"	32 oz.	30.00 lbs.
30" x 60"	14 oz.	10.94 lbs.	30" x 72"	36 oz.	33.75 lbs.
* 30" x 60"	16 oz.	12.50 lbs.	30" x 96"	12 oz.	15.00 lbs.
* 30" x 60"	18 oz.	14.06 lbs.	* 30" x 96"	14 oz.	17.50 lbs.
30" x 60"	20 oz.	15.63 lbs.	* 30" x 96"	16 oz.	20.00 lbs.
* 30" x 60"	24 oz.	18.75 lbs.	* 30" x 96"	18 oz.	22.50 lbs.
30" x 60"	26 oz.	20.31 lbs.	* 30" x 96"	20 oz.	25.00 lbs.

†Weight based on 12½ square feet or full sheet 30" x 60". Continued on page 25.

PACKING

It is customary to roll and crate all freight and express shipments on Soft Copper sheet up to 48 ounces per square foot out of our warehouse stocks. Sizes 48 ounces and heavier are usually shipped uncrated, and at our option, any type of copper sheet delivered by our trucks may be uncrated. On shipments where the net weight of the contents is less than 100 pounds per item, boxing will be charged extra at cost.

ROLLING SHEET COPPER

Under 64 Oz.

In rolling sheet copper under 64 ounces to the square foot, standard mill practice calls for rolling in packs of from two to six sheets depending upon the size and gage. This must be taken into consideration when ordering other than standard sizes under 64 ounces per square foot.



SHEET COPPER

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

Sheet
Copper

SOFT IN PLAIN FLAT SHEETS

Size of Sheet in Inches	Weight Per Sq. Ft.	Approximate Total Weight of Sheet	Size of Sheet in Inches	Weight Per Sq. Ft.	Approximate Total Weight of Sheet
*30" x 96"	24 oz.	30.00 lbs.	36" x 120"	32 oz.	60.00 lbs.
*30" x 96"	32 oz.	40.00 lbs.	48" x 72"	16 oz.	24.00 lbs.
30" x 96"	48 oz.	60.00 lbs.	48" x 72"	20 oz.	30.00 lbs.
*30" x 96"	53 oz.	66.25 lbs.	48" x 72"	24 oz.	36.00 lbs.
30" x 120"	16 oz.	25.00 lbs.	48" x 72"	28 oz.	42.00 lbs.
32" x 96"	16 oz.	21.33 lbs.	48" x 72"	32 oz.	48.00 lbs.
36" x 72"	16 oz.	18.00 lbs.	48" x 72"	40 oz.	60.00 lbs.
36" x 72"	24 oz.	27.00 lbs.	48" x 72"	48 oz.	72.00 lbs.
36" x 72"	48 oz.	54.00 lbs.	48" x 72"	56 oz.	84.00 lbs.
*36" x 96"	14 oz.	21.00 lbs.	48" x 72"	4 lbs.	96.00 lbs.
*36" x 96"	16 oz.	24.00 lbs.	48" x 72"	4½ lbs.	108.00 lbs.
*36" x 96"	18 oz.	27.00 lbs.	48" x 72"	5 lbs.	120.00 lbs.
*36" x 96"	20 oz.	30.00 lbs.	48" x 72"	5½ lbs.	132.00 lbs.
*36" x 96"	24 oz.	36.00 lbs.	48" x 72"	6 lbs.	144.00 lbs.
*36" x 96"	32 oz.	48.00 lbs.	48" x 72"	7 lbs.	168.00 lbs.
*36" x 96"	48 oz.	72.00 lbs.	48" x 72"	8 lbs.	192.00 lbs.
*36" x 96"	60 oz.	90.00 lbs.	48" x 72"	9 lbs.	216.00 lbs.
*36" x 96"	⅛" thick	138.24 lbs.	48" x 72"	12 lbs.	288.00 lbs.
36" x 96"	6 lbs.	144.00 lbs.	48" x 72"	⅛" thick	69.44 lbs.
*36" x 96"	84 oz.	125.375 lbs.	48" x 72"	⅛" thick	138.88 lbs.
36" x 120"	16 oz.	30.00 lbs.			

Continued on page 26

Shipping Weights and
Number of Sheets in
Standard Mill Cases

Size of Sheets	12 Oz.		14 Oz.		16 Oz.		18 Oz.		20 Oz.		24 Oz.	
	Number of Sheets, Per Case	Approximate Total Weight per Case, (in Lbs.)	Number of Sheets, Per Case	Approximate Total Weight per Case, (in Lbs.)	Number of Sheets, Per Case	Approximate Total Weight per Case, (in Lbs.)	Number of Sheets, Per Case	Approximate Total Weight per Case, (in Lbs.)	Number of Sheets, Per Case	Approximate Total Weight per Case, (in Lbs.)	Number of Sheets, Per Case	Approximate Total Weight per Case, (in Lbs.)
30" x 60"	50	469	50	547	50	625	50	700	40	625	35	656
20" x 96"	..	..	50	583	50	666	..	..	..	..	..	..
24" x 96"	..	..	50	700	40	640	35	630	35	700	25	600
26" x 96"	..	..	..	..	40	693	..	..	..	..	..	..
28" x 96"	..	..	40	653	35	653	..	..	..	..	..	..
30" x 96"	45	675	40	700	35	700	30	675	25	625	20	600
36" x 96"	..	..	30	630	30	720	25	675	25	750	20	720



SHEET COPPER

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

SOFT IN PLAIN FLAT SHEETS (Continued)

Size of Sheet in Inches	Weight Per Sq. Ft.	Approximate Total Weight of Sheet	Size of Sheet in Inches	Weight Per Sq. Ft.	Approximate Total Weight of Sheet
48" x 96"	14 oz.	27.13 lbs.	60" x 96"	25 lbs.†	80.00 lbs.
48" x 96"	32 oz.	64.00 lbs.	60" x 96"	35 lbs.†	112.00 lbs.
48" x 96"	48 oz.	96.00 lbs.	60" x 120"	24 oz.	75.00 lbs.
48" x 96"	4 lbs.	128.00 lbs.	60" x 120"	32 oz.	100.00 lbs.
48" x 96"	6 lbs.	192.00 lbs.	60" x 120"	48 oz.	150.00 lbs.
48" x 96"	20 lbs.†	51.20 lbs.	60" x 120"	56 oz.	175.00 lbs.
48" x 96"	30 lbs.†	79.00 lbs.	60" x 120"	4 lbs.	200.00 lbs.
48" x 96"	35 lbs.†	90.00 lbs.	60" x 120"	4½ lbs.	225.00 lbs.
48" x 96"	70 lbs.†	179.00 lbs.	60" x 120"	5 lbs.	250.00 lbs.
48" x 96"	100 lbs.†	256.00 lbs.	60" x 120"	5½ lbs.	275.00 lbs.
48" x 120"	32 oz.	80.00 lbs.	60" x 120"	6 lbs.	300.00 lbs.
48" x 120"	40 oz.	100.00 lbs.	60" x 120"	7 lbs.	350.00 lbs.
48" x 120"	48 oz.	120.00 lbs.	60" x 120"	8 lbs.	400.00 lbs.
48" x 120"	4 lbs.	160.00 lbs.	60" x 120"	25 lbs.†	100.00 lbs.
48" x 120"	5 lbs.	200.00 lbs.	60" x 120"	40 lbs.†	160.00 lbs.
48" x 120"	6 lbs.	240.00 lbs.	60" x 120"	50 lbs.†	200.00 lbs.
48" x 120"	7½ lbs.	300.00 lbs.	60" x 120"	60 lbs.†	240.00 lbs.
48" x 120"	9 lbs.	360.00 lbs.	60" x 120"	70 lbs.†	280.00 lbs.
48" x 120"	12 lbs.	480.00 lbs.	60" x 120"	100 lbs.†	400.00 lbs.
48" x 120"	25 lbs.†	80.00 lbs.	72" x 120"	3 lbs.	180.00 lbs.
48" x 120"	30 lbs.†	96.00 lbs.	72" x 120"	4 lbs.	240.00 lbs.
48" x 120"	35 lbs.†	112.00 lbs.	72" x 120"	4½ lbs.	270.00 lbs.
48" x 120"	40 lbs.†	128.00 lbs.	72" x 120"	5 lbs.	300.00 lbs.
* 60" x 96"	48 oz.	120.00 lbs.	72" x 120"	6 lbs.	360.00 lbs.
* 60" x 96"	4 lbs.	160.00 lbs.	72" x 144"	5 lbs.	360.00 lbs.

†Weight based on 12½ square feet or full sheet 30" x 60".

Soft—Tinned One Side

Size of Sheet in Inches	Weight Per Sq. Ft.	Approximate Total Weight of Sheet	Size of Sheet in Inches	Weight Per Sq. Ft.	Approximate Total Weight of Sheet
14" x 48"	14 oz.	4.08 lbs.	30" x 96"	14 oz.	17.50 lbs.
30" x 60"	14 oz.	10.94 lbs.	30" x 96"	16 oz.	20.00 lbs.
30" x 60"	16 oz.	12.50 lbs.	36" x 96"	16 oz.	24.00 lbs.

QUARTER HARD SHEET COPPER

Quarter Hard Copper is stocked in random mill lengths of 12 ft. The following sheet thickness sizes are available only in 13" widths. 1/16", 3/32", 1/8", 3/16", 1/4", 5/16", 3/8", 1/2".



SHEET COPPER

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

Sheet
Copper

COLD ROLLED—PLAIN PATENT LEVELED

Size of Sheet in Inches	Weight Per Square Ft.	Approximate Total Weight of Sheet	Size of Sheet in Inches	Weight Per Square Ft.	Approximate Total Weight of Sheet
10" x 96"†	16 oz.	6.68 lbs.	30" x 60"	25 lbs.‡	25 lbs.
12" x 72"	1/16"	17.36 lbs.	30" x 60"	20 oz.	15.63 lbs.
12" x 72"	1/8"	34.72 lbs.	30" x 60"	24 oz.	18.75 lbs.
12" x 96"†	16 oz.	8.00 lbs.	30" x 60"	32 oz.	25.00 lbs.
12" x 96"	24 oz.	12.00 lbs.	30" x 60"	38 oz.	29.56 lbs.
12" x 96"	1/16"	23.15 lbs.	30" x 60"	48 oz.	37.50 lbs.
12" x 96"	1/8"	46.30 lbs.	30" x 60"	1/8"	72.00 lbs.
12" x 96"	3/16"	69.44 lbs.	30" x 96"	10 oz.	12.50 lbs.
12" x 96"	1/4"	92.59 lbs.	30" x 96"	12 oz.	15.00 lbs.
13" x 96"	16 oz.	8.68 lbs.	*30" x 96"	14 oz.	17.50 lbs.
14" x 96"†	16 oz.	9.33 lbs.	*30" x 96"	16 oz.	20.00 lbs.
15" x 96"†	16 oz.	10.00 lbs.	*30" x 96"	18 oz.	22.50 lbs.
16" x 96"	14 oz.	9.34 lbs.	*30" x 96"	20 oz.	25.00 lbs.
16" x 96"	16 oz.	10.67 lbs.	*30" x 96"	24 oz.	30.00 lbs.
18" x 96"	16 oz.	12.00 lbs.	30" x 96"	26 oz.	32.50 lbs.
18" x 120"	16 oz.	15.00 lbs.	30" x 96"	28 oz.	35.00 lbs.
20" x 96"	14 oz.	11.67 lbs.	*30" x 96"	32 oz.	40.00 lbs.
*20" x 96"	16 oz.	13.33 lbs.	30" x 96"	36 oz.	45.00 lbs.
24" x 96"	14 oz.	14.00 lbs.	30" x 96"	48 oz.	60.00 lbs.
*24" x 96"	16 oz.	16.00 lbs.	30" x 120"	16 oz.	25.00 lbs.
24" x 96"	18 oz.	18.00 lbs.	30" x 120"	20 oz.	31.25 lbs.
24" x 96"	20 oz.	20.00 lbs.	30" x 120"	24 oz.	37.50 lbs.
*24" x 96"	24 oz.	24.00 lbs.	32" x 96"	16 oz.	21.33 lbs.
24" x 96"	32 oz.	32.00 lbs.	34" x 96"	16 oz.	22.62 lbs.
24" x 96"	48 oz.	48.00 lbs.	36" x 96"	12 oz.	18.00 lbs.
24" x 120"	16 oz.	20.00 lbs.	*36" x 96"	14 oz.	21.00 lbs.
24" x 120"	24 oz.	30.00 lbs.	*36" x 96"	16 oz.	24.00 lbs.
26" x 96"	14 oz.	15.17 lbs.	*36" x 96"	18 oz.	27.00 lbs.
26" x 96"	16 oz.	17.33 lbs.	*36" x 96"	20 oz.	30.00 lbs.
28" x 96"	14 oz.	16.33 lbs.	36" x 96"	22 oz.	33.00 lbs.
*28" x 96"	16 oz.	18.67 lbs.	*36" x 96"	24 oz.	36.00 lbs.
30" x 60"	10 oz.	7.81 lbs.	36" x 96"	26 oz.	39.00 lbs.
30" x 60"	12 oz.	9.38 lbs.	36" x 96"	28 oz.	42.00 lbs.
30" x 60"	14 oz.	10.94 lbs.	*36" x 96"	32 oz.	48.00 lbs.
30" x 60"	16 oz.	12.50 lbs.	*36" x 96"	36 oz.	54.00 lbs.
30" x 60"	18 oz.	14.06 lbs.	36" x 96"	40 oz.	60.00 lbs.

†Cold Rolled Strip Copper for general sheet metal work.

‡Weight based on 12½ square feet on 30" x 60" sheet.



SHEET COPPER

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

PLAIN

Cold Rolled—Patent Levelled

Size of Sheet in Inches	Weight Per Square Ft.	Approximate Total Weight of Sheet
* 36" x 96"	48 oz.	72.00 lbs.
* 36" x 96"	.081	20.27 lbs.
36" x 96"	60 oz.	120 lbs.
36" x 96"	$\frac{1}{8}$ "	138.24 lbs.
* 36" x 120"	16 oz.	30 lbs.
36" x 120"	18 oz.	33.75 lbs.
36" x 120"	16 oz.	30 lbs.
36" x 120"	18 oz.	33.75 lbs.
36" x 120"	20 oz.	37.50 lbs.
36" x 120"	22 oz.	41.25 lbs.
36" x 120"	24 oz.	45.00 lbs.
36" x 120"	28 oz.	52.50 lbs.
* 36" x 120"	.081	111.97 lbs.
36" x 120"	32 oz.	60.00 lbs.
36" x 120"	36 oz.	67.50 lbs.
36" x 120"	48 oz.	90.00 lbs.
* 36" x 120"	$\frac{1}{8}$ "	172.8 lbs.
40" x 120"	28 oz.	58.32 lbs.
42" x 96"	20 oz.	35.00 lbs.
48" x 96"	32 oz.	64.00 lbs.
48" x 120"	2 $\frac{1}{2}$ lbs.	100.00 lbs.
48" x 120"	3 lbs.	120.00 lbs.
48" x 120"	25 lbs.†	40.00 lbs.
60" x 120"	25 lbs.†	100.00 lbs.
60" x 144"	3 lbs.	180.00 lbs.
60" x 144"	4 lbs.	240.00 lbs.
60" x 144"	5 lbs.	300.00 lbs.

†Weight based upon 12 $\frac{1}{2}$ sq. ft. or full sheet 30" x 60".

PLAIN

Cold Rolled—Annealed

Size of Sheet in Inches	Weight Per Square Ft.	Approximate Total Weight of Sheet
36" x 96"	20 oz.	30.00 lbs.
36" x 96"	24 oz.	36.00 lbs.
36" x 96"	32 oz.	48.00 lbs.

TINNED ONE SIDE

Cold Rolled—Patent Levelled

Size of Sheet in Inches	Weight Per Square Ft.	Approximate Total Weight of Sheet
* 24" x 96"	14 oz.	14.00 lbs.
24" x 96"	16 oz.	16.00 lbs.
24" x 96"	18 oz.	18.00 lbs.
24" x 96"	24 oz.	24.00 lbs.
30" x 60"	14 oz.	10.94 lbs.
30" x 60"	16 oz.	12.50 lbs.
30" x 60"	20 oz.	15.63 lbs.
30" x 60"	20 lbs.†	20.00 lbs.
* 30" x 96"	14 oz.	17.50 lbs.
* 30" x 96"	16 oz.	20.00 lbs.
* 30" x 96"	18 oz.	22.50 lbs.
30" x 96"	20 oz.	25.00 lbs.
* 30" x 96"	24 oz.	30.00 lbs.
30" x 96"	28 oz.	35.00 lbs.
* 30" x 96"	32 oz.	40.00 lbs.
* 36" x 96"	14 oz.	21.00 lbs.
* 36" x 96"	16 oz.	24.00 lbs.
* 36" x 96"	18 oz.	27.00 lbs.
* 36" x 96"	20 oz.	30.00 lbs.
* 36" x 96"	24 oz.	36.00 lbs.
36" x 96"	28 oz.	42.00 lbs.
36" x 96"	32 oz.	48.00 lbs.
36" x 120"	16 oz.	30.00 lbs.
36" x 120"	20 oz.	37.50 lbs.
48" x 120"	25 lbs.†	80.00 lbs.
60" x 120"	25 lbs.†	100.00 lbs.

†Weight based upon 12 $\frac{1}{2}$ sq. ft. or full sheet 30" x 60".

TINNED BOTH SIDES

Cold Rolled—Patent Levelled

Size of Sheet in Inches	Weight Per Square Ft.	Approximate Total Weight of Sheet
30" x 96"	16 oz.	20.00 lbs.
30" x 96"	20 oz.	25.00 lbs.
30" x 96"	24 oz.	30.00 lbs.
36" x 96"	24 oz.	36.00 lbs.



SHEET COPPER

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

Sheet
Copper

Polished One Side and Tinned One Side

Cold Rolled—Patent Levelled

Size of Sheet in Inches	Weight Per Sq. Ft.	Approximate Total Weight of Sheet
30" x 60"	14 oz.	10.94 lbs.
30" x 60"	16 oz.	12.50 lbs.
30" x 96"	16 oz.	20.00 lbs.
30" x 96"	20 oz.	25.00 lbs.
30" x 96"	24 oz.	30.00 lbs.

Polished One Side

Cold Rolled—Patent Levelled

Size of Sheet in Inches	Weight Per Sq. Ft.	Approximate Total Weight of Sheet
24" x 96"	16 oz.	16.00 lbs.
30" x 60"	12 oz.	9.38 lbs.
30" x 60"	16 oz.	12.50 lbs.
30" x 60"	18 oz.	14.06 lbs.
30" x 96"	16 oz.	20.00 lbs.
30" x 96"	20 oz.	25.00 lbs.
36" x 96"	16 oz.	24.00 lbs.

Chromium Plated—Cold Rolled—36" x 96" x 16 oz.

HALF HARD SAWED COPPER SHEET

Lengths of 13 Feet

Width of Sheet in Inches	Thickness in Inches	Approximate Total Weight of Sheet
13"	$\frac{1}{16}$ "	41.20 lbs.
13"	$\frac{3}{32}$ "	60.84 lbs.
13"	$\frac{1}{8}$ "	81.12 lbs.
13"	$\frac{3}{16}$ "	121.68 lbs.
13"	$\frac{1}{4}$ "	162.24 lbs.
13"	$\frac{5}{16}$ "	202.80 lbs.
13"	$\frac{3}{8}$ "	243.36 lbs.
13"	$\frac{1}{2}$ "	324.48 lbs.

Utility Strip Copper

Cold Rolled—Patent Levelled
Edges Straight and Parallel

Size Strip in Inches	Weight Per Sq. Ft.	Approximate Total Weight of Strip
10" x 96"	16 oz.	6.67 lbs.
12" x 96"	16 oz.	8.00 lbs.
15" x 96"	16 oz.	10.00 lbs.
8" x 120"	16 oz.	6.67 lbs.
8 $\frac{1}{4}$ " x 120"	16 oz.	6.88 lbs.
10" x 120"	16 oz.	8.34 lbs.
10 $\frac{1}{2}$ " x 120"	16 oz.	8.75 lbs.
12" x 120"	16 oz.	10.00 lbs.
13 $\frac{1}{2}$ " x 120"	16 oz.	11.25 lbs.
13 $\frac{23}{32}$ " x 120"	16 oz.	11.43 lbs.
14" x 120"	16 oz.	11.67 lbs.
15" x 120"	16 oz.	12.50 lbs.

Utility Strip Copper

Used Mainly for Manufacture of
Roofing Gutters and Downspouts

Number of Sheets per Case

10 Ft. Lengths $\left\{ \begin{array}{l} 6\frac{1}{8}" \text{ to } 9" \text{ widths inclusive, 100 sheets.} \\ 9\frac{3}{4}" \text{ to } 13" \text{ widths inclusive, 75 sheets.} \\ 13\frac{1}{4}" \text{ wide and over, 50 sheets.} \end{array} \right.$

Sheet Copper Tempers for Roofing Work

Use soft copper for roofing such as flat seam, standing seam and batten seam roofs, also for all flashing and counter flashing work and in other places where the shaped or formed work is supported such as in built-in or box gutter linings.

Use cold rolled (hard) copper for all hanging gutters, downspouts, cornices or wherever stiffness is necessary to support or maintain the shape and contour of the work.

All Chase Sheet and Roll Copper is carefully packed or crated so that it cannot be damaged easily in shipment. We take this precaution so that the copper will be ready for immediate use upon arrival.



COPPER IN ROLLS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

Cold Rolled Annealed—Rolls of 80 to 100 Lbs.—For Spinning and Stamping

Weight Per Sq. Ft.	Width of Roll	Approximate Total Length of Roll
4 oz.	12"	246 ft.
6 oz.	12"	200 ft.
7 oz.	12"	171 ft.
8 oz.	12"	159 ft.
10 oz.	8"	147 ft.
10 oz.	10"	125 ft.
10 oz.	12"	120 ft.
10 oz.	14"	120 ft.
12 oz.	12"	100 ft.
12 oz.	14"	100 ft.
14 oz.	8"	129 ft.
14 oz.	10"	103 ft.
14 oz.	11"	120 ft.
* 14 oz.	12"	86 ft.
* 14 oz.	14"	73 ft.
14 oz.	16"	82 ft.
14 oz.	18"	74 ft.
14 oz.	20"	67 ft.
16 oz.	5"	180 ft.
* 16 oz.	6"	222 ft.
16 oz.	7"	125 ft.
* 16 oz.	8"	112 ft.
16 oz.	9"	91 ft.
* 16 oz.	10"	67 ft.
* 16 oz.	12"	100 ft.
16 oz.	14"	64 ft.
16 oz.	15"	50 ft.
* 16 oz.	16"	56 ft.
* 16 oz.	18"	50 ft.
16 oz.	20"	61 ft.
* 18 oz.	10"	76 ft.
* 18 oz.	12"	67 ft.
* 18 oz.	14"	57 ft.
20 oz.	12"	80 ft.
20 oz.	14"	151 ft.

Weight Per Sq. Ft.	Width of Roll	Approximate Total Length of Roll
* 24 oz.	10"	45 ft.
* 24 oz.	12"	30 ft.
* 24 oz.	14"	42 ft.
24 oz.	16"	50 ft.
32 oz.	12"	50 ft.
32 oz.	14"	44 ft.
48 oz.	12"	26 ft.

Thickness in B. & S. Gage	Width of Roll	Approximate Total Length of Roll
No. 14	12"	22 ft.
No. 16	12"	40 ft.
No. 18	12"	51 ft.
No. 18	14"	43 ft.
No. 18	16"	38 ft.
No. 18	18"	34 ft.
No. 20	12"	63 ft.
No. 20	14"	53 ft.
No. 20	16"	50 ft.
No. 22	12"	81 ft.
No. 22	14"	70 ft.
No. 23	8"	112 ft.
No. 23	10"	67 ft.
No. 23	12"	189 ft.
No. 23	14"	64 ft.
No. 23	15"	50 ft.
No. 23	16"	56 ft.
No. 23	18"	50 ft.
No. 23	20"	61 ft.
No. 24	12"	103 ft.
No. 25	12"	114 ft.
No. 26	12"	128 ft.
No. 28	12"	158 ft.
No. 30	12"	205 ft.
No. 32	12"	250 ft.
No. 33	6"	528 ft.

(Continued on page 31)



COPPER IN ROLLS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

Sheet
Copper

Cold Rolled Annealed—(continued)

Thickness in B. & S. Gage	Width of Roll	Approximate Total Length of Roll
No. 33	8"	395 ft.
No. 33	12"	262 ft.
No. 33	14"	225 ft.
No. 36	3"	737 ft.
No. 36	4"	1106 ft.
No. 36	6"	737 ft.
No. 36	12"	359 ft.

FOR ROOFING PURPOSES

Cold Rolled—Annealed

In Rolls of 80 to 100 Pounds

Width in Inches	Weight Per Square Ft.	Approximate Weight Per Lineal Ft.	Approximate Total Length of Roll
5"	16 oz.	.417 lbs.	180 ft.
6"	16 oz.	.500 lbs.	198 ft.
7"	16 oz.	.583 lbs.	128 ft.
8"	16 oz.	.667 lbs.	112 ft.
10"	16 oz.	.833 lbs.	90 ft.
12"	14 oz.	.875 lbs.	86 ft.
12"	16 oz.	1.000 lbs.	75 ft.
12"	18 oz.	1.135 lbs.	67 ft.
14"	14 oz.	1.021 lbs.	73 ft.
14"	16 oz.	1.167 lbs.	64 ft.
14"	18 oz.	1.310 lbs.	72 ft.
15"	16 oz.	1.250 lbs.	50 ft.
16"	16 oz.	1.333 lbs.	56 ft.
18"	16 oz.	1.500 lbs.	50 ft.
20"	16 oz.	1.667 lbs.	45 ft.

Cold Rolled Copper in Rolls

Cold Rolled Copper is carried in stock in 16 oz. weights and widths of 12" and 15".

FOR ELECTRICAL WORK

Spring and Brush Copper

In Rolls of About 20 Pounds

Width in Inches	Thickness in B. & S. Gage	Decimal Equivalent	Approximate Weight Per Square Ft.
6"	No. 36	.005	.2315 lbs.
8"	No. 20	.03196	1.4800 lbs.
8"	No. 24	.02010	.9307 lbs.
8"	No. 26	.01594	.7381 lbs.
8"	No. 30	.01003	.4642 lbs.
8"	No. 32	.00795	.3681 lbs.
8"	No. 34	.00631	.2919 lbs.
8"	No. 36	.005	.2315 lbs.
14"	No. 36	.005	.2326 lbs.

FOR STORE FRONT WORK

Cold Rolled—Annealed

In Rolls of 100 Pounds

Width in Inches	Weight Per Square Ft.	Approximate Weight Per Lineal Ft.	Approximate Total Length of Roll
2¾"	12 oz.	.172 lbs.	233 ft.
3"	12 oz.	.188 lbs.	213 ft.
3½"	12 oz.	.219 lbs.	182 ft.
3¾"	12 oz.	.234 lbs.	171 ft.
4¼"	12 oz.	.266 lbs.	150 ft.
14"	12 oz.	.875 lbs.	46 ft.

Copper Anodes

Copper Anodes—Hot Rolled—Untrimmed—are carried in stock in sizes 10" x 22½" x ½", 18" x 12" x ½", 7" x 20" x 1"

* Size 6" x 19" x 1" only, drilled with two holes, sawed edges, trimmed, carried in Milwaukee stock.

Copper Flashings

Cut Copper Flashings are carried in stock in one size 5" x 7" x 16 oz.—Packed 100 to a carton.



COPPER IN ROLLS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

COPPER FOIL

Rolls of About 20 Pounds

Width in Inches	Thickness in Inches
6"	.001"
6"	.0015"
6"	.002"
12"	.005"

Thin Sheet Copper

Copper as thin as .001", .002", .003" and .005" can be furnished from mill in rolls, coils or spools, according to width. On .001" we can furnish any width up to 6" and on .005" up to 15"; the two intermediate thicknesses can be furnished in any width up to 12".

It is possible to supply practically any continuous length on the narrower sizes. For example, we can furnish .003" copper 1/2" wide, in one continuous length 2,000 to 2,500 ft. Wider material and heavier gages will run proportionately shorter.

LEAD COATED COPPER

All Chase sheet, roll and strip copper can be furnished lead coated. A wide range of finishes from rough heavy coatings to light smooth coatings are available from mill stock.

Lead coated copper has the neutral gray coloring of solid lead and the added advantage of lightness, easy working qualities and lower basic cost.

Description of Finishes

Chase Commercial—Standard and Antique—Coated with approximately 12 to 15 lbs. of lead per 100 square feet applied on *Both Sides* of the sheet. (6 to 7½ lbs. per side.)

Chase Puritan—Coated with approximately 25 to 30 lbs. of lead per 100 square feet applied on *Both Sides* of the sheet. (12½ to 15 lbs. per side.)

Chase Colonial—Coated with approximately 40 to 50 lbs. of lead per 100 square feet applied on *Both Sides* of the sheet. (20 to 25 lbs. per side.)

Chase Electrolytically Coated—A smooth finish on one side or both sides of the sheet. Specify which is wanted. This finish can be furnished in practically any weight of coating.

STOCK SIZES

Lead Coated Two Sides

Commercial Standard Finish

Soft or Cold Rolled

Size of Sheet in Inches	Weight Per Square Ft.	Approximate Total Weight of Sheet
* 24" x 96"	16 oz.	18.00 lbs.
24" x 120"	16 oz.	20.00 lbs.
* 30" x 96"	16 oz.	23.00 lbs.
30" x 120"	16 oz.	25.00 lbs.
* 36" x 96"	16 oz.	27.50 lbs.
36" x 120"	16 oz.	30.00 lbs.

Electrolytically Lead Coated Copper

Chase Electrolytically Lead Coated Copper is adapted to work where copper requires painting, as it eliminates cleaning and the use of primers. It will not stain adjacent stonework, stucco or tile and is specified by leading architects for flashings, roofing, gutters, downspouts and spandrels. Also by engineers for flue linings, stacks, exhaust heads and ventilating ducts where corrosive fumes are present.

Chase Electrolytically Lead Coated Copper has a smooth finish and can be furnished in practically any weight of coating on one or both sides of sheet. When ordering specify which is wanted.

Rods



CHASE RODS, BARS AND ANGLES

BRASS

COPPER

COMMERCIAL BRONZE

NAVAL BRASS

CHAMET BRONZE

PHOSPHOR BRONZE

ANGLES and CHANNELS



FREE TURNING ROUND BRASS ROD

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses.

Lengths of 8 to 12 Feet

Diameter Inches	Decimal Equivalent	Pounds Per Ft.	Diameter Inches	Decimal Equivalent	Pounds Per Ft.
$\frac{1}{16}$ "	.0625	.01132	* $1\frac{1}{16}$ "	1.0625	3.27
.0720	.0720	....	* $1\frac{3}{32}$ "	1.0937	3.47
$\frac{3}{32}$ "	.09375	.02552	* $1\frac{1}{8}$ "	1.125	3.67
$\frac{7}{64}$ "	.109375	.03466	* $1\frac{3}{16}$ "	1.1875	4.09
* $\frac{1}{8}$ "	.125	.0453	* $1\frac{1}{4}$ "	1.250	4.53
$\frac{9}{64}$ "	.140625	.0573	* $1\frac{5}{16}$ "	1.3125	4.99
* $\frac{5}{32}$ "	.15625	.0707	* $1\frac{3}{8}$ "	1.375	5.48
$1\frac{1}{64}$ "	.171875	.0856	* $1\frac{7}{16}$ "	1.4375	5.99
* $\frac{3}{16}$ "	.1875	.1019	* $1\frac{1}{2}$ "	1.500	6.52
$1\frac{3}{64}$ "	.203125	.1195	* $1\frac{9}{16}$ "	1.5625	7.07
* $\frac{7}{32}$ "	.21875	.1387	* $1\frac{5}{8}$ "	1.625	7.65
$1\frac{5}{64}$ "	.234375	.1591	* $1\frac{11}{16}$ "	1.6875	8.25
* $\frac{1}{4}$ "	.250	.1811	* $1\frac{3}{4}$ "	1.750	8.87
$1\frac{7}{64}$ "	.265265	.2044	$1\frac{13}{16}$ "	1.813	9.52
* $\frac{9}{32}$ "	.28125	.2294	* $1\frac{7}{8}$ "	1.875	10.19
$1\frac{9}{64}$ "	.296875	.2553	$1\frac{15}{16}$ "	1.9375	10.88
* $\frac{5}{16}$ "	.3125	.2832	* 2"	2.0000	11.59
* $1\frac{1}{32}$ "	.34375	.342	* $2\frac{1}{8}$ "	2.125	13.08
$2\frac{3}{64}$ "	.3594	.391	* $2\frac{1}{4}$ "	2.250	14.67
* $\frac{3}{8}$ "	.375	.407	* $2\frac{3}{8}$ "	2.375	16.34
$2\frac{5}{64}$ "	.3906	.436	* $2\frac{1}{2}$ "	2.500	18.11
* $1\frac{3}{32}$ "	.40625	.478	* $2\frac{5}{8}$ "	2.625	19.96
* $\frac{7}{16}$ "	.4375	.555	* $2\frac{3}{4}$ "	2.750	21.91
* $1\frac{5}{32}$ "	.46875	.637	* 3"	3.000	26.13
* $\frac{1}{2}$ "	.500	.724	* $3\frac{1}{4}$ "	3.250	30.6
* $1\frac{7}{32}$ "	.53125	.818	$3\frac{1}{2}$ "	3.500	35.4
* $\frac{9}{16}$ "	.5625	.917	4"	4.000	46.3
* $1\frac{9}{32}$ "	.59375	1.021	$4\frac{1}{2}$ "	4.500	61.07
* $\frac{5}{8}$ "	.625	1.132	5"	5.000	75.4
* $2\frac{1}{32}$ "	.65625	1.247	Stub's Gage Sizes		
* $1\frac{1}{16}$ "	.6875	1.369	No. 18	.049	.00696
* $2\frac{3}{32}$ "	.719	1.497	No. 17	.058	.00975
* $\frac{3}{4}$ "	.750	1.630	No. 16	.065	.0122
* $2\frac{5}{32}$ "	.781	1.766	No. 15	.072	.0150
* $1\frac{3}{16}$ "	.812	1.913	.082"	.082	.0195
* $2\frac{7}{32}$ "	.844	2.063	No. 14	.083	.0200
* $\frac{7}{8}$ "	.875	2.219	No. 13	.095	.0261
* $1\frac{5}{16}$ "	.937	2.550	No. 12	.109	.0344
* 1"	1.0000	2.903	No. 11	.120	.0417



FREE TURNING ROUND BRASS ROD

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses

Lengths of 8 to 12 Feet

Diameter Stubs	Decimal Equivalent	Pounds Per Foot	Diameter Stubs	Decimal Equivalent	Pounds Per Foot
No. 10	.134	.0520	No. 6	.203	.1194
No. 9	.148	.0635	.205"	.205	.1217
No. 8	.165	.0789	No. 4	.238	.1641
No. 7	.180	.0939			

Rods

HALF ROUND
Lengths of 8 to 12 Feet

Dimensions	Pounds Per Foot	Dimensions	Pounds Per Foot	Dimensions	Pounds Per Foot
$\frac{3}{16}" \times \frac{3}{32}"$	.05095	* $\frac{3}{8}" \times \frac{3}{16}"$	.2035	* $\frac{3}{4}" \times \frac{3}{8}"$	.815
$\frac{1}{4}" \times \frac{1}{8}"$	.0906	* $\frac{1}{2}" \times \frac{1}{4}"$	.362	$\frac{7}{8}" \times \frac{7}{16}"$	1.110
$\frac{5}{16}" \times \frac{5}{32}"$	.1416	* $\frac{5}{8}" \times \frac{5}{16}"$	.566	1" $\times \frac{1}{2}"$	1.452

SQUARE BRASS ROD

Lengths of 10 to 12 Feet

Diameter	Pounds Per Foot	Diameter	Pounds Per Foot	Diameter	Pounds Per Foot
* $\frac{1}{8}"$	.0576	* $\frac{1}{2}"$	.922	* $1\frac{1}{4}"$	5.76
$\frac{5}{32}"$	.0937	* $\frac{9}{16}"$	1.167	$1\frac{3}{8}"$	7.26
* $\frac{3}{16}"$	.1297	* $\frac{5}{8}"$	1.441	$1\frac{1}{2}"$	8.30
$\frac{7}{32}"$	.1837	$1\frac{1}{16}"$	1.815	$1\frac{3}{4}"$	11.30
* $\frac{1}{4}"$	.2312	* $\frac{3}{4}"$	2.08	2"	14.76
$\frac{9}{32}"$	.3037	$1\frac{3}{16}"$	2.440	$2\frac{1}{4}"$	19.44
* $\frac{5}{16}"$	.360	* $\frac{7}{8}"$	2.816	$2\frac{1}{2}"$	23.13
* $\frac{3}{8}"$	.519	* 1"	3.69		
* $\frac{7}{16}"$	.706	* $1\frac{1}{8}"$	4.67		

HEXAGON BRASS ROD

Lengths of 10 to 12 Feet

Diameter	Pounds Per Foot	Diameter	Pounds per Foot	Diameter	Pounds Per Foot	Diameter	Pounds Per Foot
$\frac{1}{8}"$	.0499	* $\frac{3}{8}"$	.499	* $2\frac{3}{32}"$	1.653	* $1\frac{1}{8}"$	4.04
* $\frac{5}{32}"$	.0811	* $\frac{1}{16}"$	.6120	* $\frac{3}{4}"$	1.797	* $1\frac{3}{16}"$	4.51
* $\frac{3}{16}"$	.1123	$3\frac{1}{64}"$	.776	* $1\frac{1}{16}"$	2.111	* $1\frac{1}{4}"$	4.99
$\frac{7}{32}"$	.1552	* $\frac{1}{2}"$	.799	* $\frac{7}{8}"$	2.453	* $1\frac{5}{16}"$	5.50
* $\frac{1}{4}"$	.1997	* $\frac{9}{16}"$	1.011	* $1\frac{5}{16}"$	2.814	* $1\frac{3}{8}"$	6.04
* $\frac{9}{32}"$	.2566	* $\frac{5}{8}"$	1.248	* 1"	3.20	* $1\frac{7}{16}"$	6.60
* $\frac{5}{16}"$	.3120	* $1\frac{1}{16}"$	1.510	* $1\frac{1}{16}"$	3.61	* $1\frac{1}{2}"$	7.19



FREE TURNING BRASS ROD

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

HEXAGON BRASS ROD

Lengths of 10 to 12 Feet

(Cont. from Page 35)

Diameter	Pounds Per Foot
* $1\frac{1}{8}"$	8.44
* $1\frac{1}{4}"$	9.78
* $1\frac{7}{8}"$	11.23
* 2"	12.78
$2\frac{1}{8}"$	14.43
$2\frac{1}{4}"$	16.17
$2\frac{1}{2}"$	19.97
$2\frac{3}{4}"$	24.16
3"	28.97

HALF OVAL BRASS ROD

Lengths of 8 to 12 Feet

Dimensions	Pounds Per Foot
* $\frac{3}{8}" \times \frac{3}{32}"$	.0964
* $\frac{1}{2}" \times \frac{1}{8}"$	.1667
$\frac{5}{8}" \times \frac{5}{32}"$	.2596
$\frac{5}{8}" \times \frac{3}{16}"$	.3177
$\frac{3}{4}" \times \frac{3}{16}"$	.3776
$\frac{3}{4}" \times \frac{1}{4}"$	.5052
$\frac{7}{8}" \times \frac{1}{4}"$	.5840
1" x $\frac{1}{4}"$	.6615

HALF HARD BRASS BAR

SLIT OR SHEARED EDGES

Lengths of 8 to 10 Feet

Dimensions	Pounds Per Foot	Dimensions	Pounds Per Foot	Dimensions	Pounds Per Foot
$\frac{1}{16}" \times \frac{1}{4}"$	.0576	$\frac{1}{16}" \times 2"$	.461	$\frac{3}{32}" \times 1\frac{1}{4}"$	.432
$\frac{1}{16}" \times \frac{5}{16}"$	.0720	$\frac{1}{16}" \times 2\frac{1}{4}"$	.518	$\frac{3}{32}" \times 1\frac{1}{2}"$	.518
$\frac{1}{16}" \times \frac{3}{8}"$	.0863	$\frac{1}{16}" \times 2\frac{1}{2}"$	.576	$\frac{3}{32}" \times 1\frac{3}{4}"$	.604
$\frac{1}{16}" \times \frac{7}{16}"$	.105	$\frac{1}{16}" \times 2\frac{3}{4}"$	.6337	$\frac{3}{32}" \times 2"$	.691
* $\frac{1}{16}" \times \frac{1}{2}"$	.1151	$\frac{1}{16}" \times 3"$	.691	$\frac{3}{32}" \times 3"$	1.08
$\frac{1}{16}" \times \frac{5}{8}"$	.1439	$\frac{1}{16}" \times 3\frac{1}{2}"$	.806	$\frac{1}{8}" \times 2\frac{1}{2}"$	1.151
* $\frac{1}{16}" \times \frac{3}{4}"$	.1727	$\frac{1}{16}" \times 4"$	.921	$\frac{1}{8}" \times 3"$	1.382
$\frac{1}{16}" \times \frac{7}{8}"$	.2015	$\frac{1}{16}" \times 5"$	1.151	$\frac{1}{8}" \times 4"$	1.92
* $\frac{1}{16}" \times 1"$	.2303	$\frac{3}{32}" \times \frac{1}{2}"$	.1727	$\frac{1}{8}" \times 5"$	2.4
$\frac{1}{16}" \times 1\frac{1}{8}"$	.2590	$\frac{3}{32}" \times \frac{5}{8}"$	.2159	$\frac{3}{16}" \times 3"$	2.16
* $\frac{1}{16}" \times 1\frac{1}{4}"$	.2878	$\frac{3}{32}" \times \frac{3}{4}"$	.2590	$\frac{3}{16}" \times 4"$	2.88
* $\frac{1}{16}" \times 1\frac{1}{2}"$	.3450	$\frac{3}{32}" \times \frac{7}{8}"$	.302		
$\frac{1}{16}" \times 1\frac{3}{4}"$	.4030	$\frac{3}{32}" \times 1"$	.345		

HALF HARD RECTANGULAR BRASS BAR

SLIT OR DRAWN AS LISTED

Lengths of 8 to 12 Feet

Dimensions	Edges	Pounds Per Foot	Dimensions	Edges	Pounds Per Foot
$\frac{3}{32}" \times \frac{1}{4}"$	Slit or Drawn	.0863	$\frac{3}{32}" \times \frac{5}{8}"$	Slit	.2159
$\frac{3}{32}" \times \frac{3}{8}"$	Slit or Drawn	.1295	$\frac{3}{32}" \times \frac{3}{4}"$	Slit or Drawn	.2590
$\frac{3}{32}" \times \frac{1}{2}"$	Slit or Drawn	.1727	$\frac{3}{32}" \times \frac{7}{8}"$	Slit	.302



HALF HARD RECTANGULAR BRASS BAR

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

SLIT, SHEARED, SAWED OR DRAWN AS LISTED

Lengths of 8 to 12 Feet

Dimensions	Edges	Pounds Per Foot	Dimensions	Edges	Pounds Per Foot
$\frac{3}{32}$ " x 1"	Slit or Drawn	.345	* $\frac{3}{16}$ " x $1\frac{1}{4}$ "	Drawn	.863
$\frac{3}{32}$ " x $1\frac{1}{4}$ "	Slit or Drawn	.432	$\frac{3}{16}$ " x $1\frac{1}{2}$ "	Drawn	1.036
$\frac{3}{32}$ " x $1\frac{1}{2}$ "	Slit or Drawn	.518	$\frac{3}{16}$ " x $1\frac{3}{4}$ "	Drawn	1.209
$\frac{3}{32}$ " x 2"	Slit	.691	$\frac{3}{16}$ " x 2"	Drawn	1.382
$\frac{3}{32}$ " x $2\frac{1}{4}$ "	Slit or Sheared	.777	$\frac{3}{16}$ " x $2\frac{1}{2}$ "	Sawed	1.727
$\frac{3}{32}$ " x $2\frac{1}{2}$ "	Sawed, Slit or Sheared	.863	$\frac{3}{16}$ " x 3"	Sawed, Slit or Drawn	2.072
$\frac{3}{32}$ " x 3"	Sawed, Slit or Sheared	1.036	$\frac{3}{16}$ " x 4"	Sawed, Slit or Sheared	2.763
$\frac{3}{32}$ " x $3\frac{1}{2}$ "	Slit or Sheared	1.209	$\frac{3}{16}$ " x 5"	Sawed	3.45
$\frac{3}{32}$ " x 4"	Sawed, Slit or Sheared	1.382	$\frac{1}{4}$ " x $\frac{5}{16}$ "	Drawn	.2878
$\frac{3}{32}$ " x 5"	Slit or Sheared	1.727	$\frac{1}{4}$ " x $\frac{3}{8}$ "	Drawn	.345
* $\frac{1}{8}$ " x $\frac{1}{4}$ "	Drawn	.1151	* $\frac{1}{4}$ " x $\frac{1}{2}$ "	Drawn	.461
* $\frac{1}{8}$ " x $\frac{3}{8}$ "	Drawn	.1727	* $\frac{1}{4}$ " x $\frac{5}{8}$ "	Drawn	.576
* $\frac{1}{8}$ " x $\frac{1}{2}$ "	Drawn	.2303	* $\frac{1}{4}$ " x $\frac{3}{4}$ "	Drawn	.691
* $\frac{1}{8}$ " x $\frac{5}{8}$ "	Drawn	.2878	$\frac{1}{4}$ " x $\frac{7}{8}$ "	Drawn	.806
* $\frac{1}{8}$ " x $\frac{3}{4}$ "	Drawn	.345	* $\frac{1}{4}$ " x 1"	Drawn	.921
* $\frac{1}{8}$ " x $\frac{7}{8}$ "	Drawn	.403	* $\frac{1}{4}$ " x $1\frac{1}{4}$ "	Drawn	1.151
* $\frac{1}{8}$ " x 1"	Drawn	.461	* $\frac{1}{4}$ " x $1\frac{1}{2}$ "	Drawn	1.381
$\frac{1}{8}$ " x $1\frac{1}{8}$ "	Drawn	.518	$\frac{1}{4}$ " x $1\frac{3}{4}$ "	Drawn	1.612
* $\frac{1}{8}$ " x $1\frac{1}{4}$ "	Drawn	.576	* $\frac{1}{4}$ " x 2"	Drawn	1.842
* $\frac{1}{8}$ " x $1\frac{1}{2}$ "	Drawn	.691	$\frac{1}{4}$ " x $2\frac{1}{4}$ "	Drawn	2.072
* $\frac{1}{8}$ " x $1\frac{3}{4}$ "	Drawn	.806	* $\frac{1}{4}$ " x $2\frac{1}{2}$ "	Drawn	2.302
* $\frac{1}{8}$ " x 2"	Drawn	.921	* $\frac{1}{4}$ " x 3"	Drawn	2.763
* $\frac{1}{8}$ " x $2\frac{1}{2}$ "†	Sawed or Sheared	1.151	$\frac{1}{4}$ " x $3\frac{1}{2}$ "	Sawed	3.22
* $\frac{1}{8}$ " x 3"†	Sawed or Sheared	1.382	$\frac{1}{4}$ " x 4"	Sawed or Drawn	3.68
$\frac{1}{8}$ " x $3\frac{1}{2}$ "	Sawed or Sheared	1.612	$\frac{1}{4}$ " x 5"	Sawed	4.61
$\frac{1}{8}$ " x 4"	Sawed, Slit or Sheared	1.842	$\frac{1}{4}$ " x 6"	Sawed	5.53
$\frac{1}{8}$ " x 5"	Sawed, Slit or Sheared	2.303	$\frac{5}{16}$ " x $\frac{1}{2}$ "	Drawn	.576
$\frac{3}{16}$ " x $\frac{1}{4}$ "	Drawn	.1727	$\frac{5}{16}$ " x $\frac{3}{4}$ "	Drawn	.863
* $\frac{3}{16}$ " x $\frac{3}{8}$ "	Drawn	.2590	$\frac{5}{16}$ " x 1"	Drawn	1.151
$\frac{3}{16}$ " x $\frac{7}{16}$ "	Drawn	.315	$\frac{5}{16}$ " x $1\frac{1}{4}$ "	Drawn	1.50
* $\frac{3}{16}$ " x $\frac{1}{2}$ "	Drawn	.345	$\frac{5}{16}$ " x $1\frac{1}{2}$ "	Drawn	1.727
$\frac{3}{16}$ " x $\frac{5}{8}$ "	Drawn	.432	$\frac{5}{16}$ " x 2"	Drawn	2.303
* $\frac{3}{16}$ " x $\frac{3}{4}$ "	Drawn	.518	$\frac{3}{8}$ " x $\frac{1}{2}$ "	Drawn	.691
$\frac{3}{16}$ " x $\frac{7}{8}$ "	Drawn	.604	$\frac{3}{8}$ " x $\frac{5}{8}$ "	Drawn	.863
* $\frac{3}{16}$ " x 1"	Drawn	.691	* $\frac{3}{8}$ " x $\frac{3}{4}$ "	Drawn	1.036

† Milwaukee stock drawn.



HALF HARD RECTANGULAR BRASS BAR

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

SAWED OR DRAWN AS LISTED

Lengths of 8 to 12 Feet

Dimensions	Edges	Pounds Per Foot	Dimensions	Edges	Pounds Per Foot
$\frac{3}{8}$ " x $\frac{7}{8}$ "	Drawn	1.209	* $\frac{1}{2}$ " x $1\frac{1}{2}$ "	Drawn	2.763
* $\frac{3}{8}$ " x 1"	Drawn	1.382	* $\frac{1}{2}$ " x 2"	Drawn	3.68
* $\frac{3}{8}$ " x $1\frac{1}{4}$ "	Drawn	1.727	$\frac{1}{2}$ " x $2\frac{1}{2}$ "	Drawn	4.61
* $\frac{3}{8}$ " x $1\frac{1}{2}$ "	Drawn	2.072	$\frac{1}{2}$ " x 3"	Drawn	5.53
* $\frac{3}{8}$ " x 2"	Drawn	2.763	$\frac{1}{2}$ " x $3\frac{1}{2}$ "	Drawn	6.452
$\frac{3}{8}$ " x $2\frac{1}{2}$ "	Drawn	3.45	$\frac{5}{8}$ " x $\frac{3}{4}$ "	Drawn	1.726
$\frac{3}{8}$ " x 3"	Drawn	4.14	$\frac{5}{8}$ " x 1"	Drawn	2.302
$\frac{3}{8}$ " x 4"	Sawed or Drawn	5.53	$\frac{5}{8}$ " x $1\frac{1}{4}$ "	Drawn	2.878
$\frac{3}{8}$ " x 5"	Sawed	6.91	$\frac{5}{8}$ " x $2\frac{1}{2}$ "	Drawn	6.00
$\frac{1}{2}$ " x $\frac{5}{8}$ "	Drawn	1.151	$\frac{3}{4}$ " x 1"	Drawn	2.764
$\frac{1}{2}$ " x $\frac{3}{4}$ "	Drawn	1.382	$\frac{3}{4}$ " x $1\frac{1}{4}$ "	Drawn	3.454
$\frac{1}{2}$ " x $\frac{7}{8}$ "	Drawn	1.612	$\frac{3}{4}$ " x $1\frac{1}{2}$ "	Drawn	4.144
$\frac{1}{2}$ " x 1"	Drawn	1.842	$\frac{3}{4}$ " x $2\frac{1}{2}$ "	Drawn	7.20
* $\frac{1}{2}$ " x $1\frac{1}{4}$ "	Drawn	2.303	$\frac{7}{8}$ " x 1"	Drawn	3.224
$\frac{1}{2}$ " x $1\frac{3}{8}$ "	Drawn	2.64			

FREE TURNING COMMERCIAL BRONZE ROD

RECTANGULAR

Lengths of 10 to 12 Feet

Dimensions	Pounds Per Foot	Dimensions	Pounds Per Foot	Dimensions	Pounds Per Foot
$\frac{1}{8}$ " x $\frac{1}{2}$ "	.2387	$\frac{3}{16}$ " x 2"	1.429	$\frac{3}{8}$ " x 1"	1.432
$\frac{1}{8}$ " x $\frac{5}{8}$ "	.2984	$\frac{1}{4}$ " x $\frac{1}{2}$ "	.4775	$\frac{3}{8}$ " x $1\frac{1}{4}$ "	1.790
$\frac{1}{8}$ " x $\frac{3}{4}$ "	.3581	$\frac{1}{4}$ " x $\frac{5}{8}$ "	.5968	$\frac{3}{8}$ " x $1\frac{1}{2}$ "	2.148
$\frac{1}{8}$ " x 1"	.4775	$\frac{1}{4}$ " x $\frac{3}{4}$ "	.7162	$\frac{3}{8}$ " x 2"	2.865
$\frac{1}{8}$ " x $1\frac{1}{4}$ "	.5968	$\frac{1}{4}$ " x 1"	.9549	$\frac{1}{2}$ " x $\frac{3}{4}$ "	1.432
$\frac{1}{8}$ " x $1\frac{1}{2}$ "	.7161	$\frac{1}{4}$ " x $1\frac{1}{4}$ "	1.194	$\frac{1}{2}$ " x 1"	1.910
$\frac{1}{8}$ " x 2"	.9549	$\frac{1}{4}$ " x $1\frac{1}{2}$ "	1.432	$\frac{1}{2}$ " x $1\frac{1}{4}$ "	2.387
$\frac{3}{16}$ " x $\frac{1}{2}$ "	.3571	$\frac{1}{4}$ " x 2"	1.910	$\frac{1}{2}$ " x $1\frac{1}{2}$ "	2.865
$\frac{3}{16}$ " x $\frac{3}{4}$ "	.5371	$\frac{3}{8}$ " x $\frac{1}{2}$ "	.7162	$\frac{1}{2}$ " x 2"	3.820
$\frac{3}{16}$ " x 1"	.7143	$\frac{3}{8}$ " x $\frac{5}{8}$ "	.8952		
$\frac{3}{16}$ " x $1\frac{1}{4}$ "	.8928	$\frac{3}{8}$ " x $\frac{3}{4}$ "	1.074		



FREE TURNING COMMERCIAL BRONZE ROD

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses

HEXAGON—Leaded

Diam. in Inches and Dec. Equiv.	Pounds Per Foot	Diam. in Inches and Dec. Equiv.	Pounds Per Foot
$\frac{3}{8}$ " (.375)	.449	$\frac{7}{8}$ " (.875)	2.446
$\frac{1}{2}$ " (.500)	.798	1" (1.000)	3.20
$\frac{9}{16}$ " (.5625)	1.011	$1\frac{1}{8}$ " (1.125)	4.04
$\frac{5}{8}$ " (.625)	1.292	$1\frac{1}{4}$ " (1.250)	4.99
$1\frac{1}{16}$ " (.6875)	1.510	$1\frac{3}{8}$ " (1.375)	6.04
$\frac{3}{4}$ " (.750)	1.797	$1\frac{1}{2}$ " (1.500)	7.19

Rods

ROUND AND SQUARE

Lengths of 10 to 12 Feet

Pounds Per Foot Indicate Sizes Carried In Stock

Diameter in Inches and Decimal Equivalent		Pounds Per Foot		Diameter in Inches and Decimal Equivalent		Pounds Per Foot	
		Round	Square			Round	Square
$\frac{1}{8}$ "	.125	.0469	....	* $\frac{5}{8}$ "	.625	1.172	1.492
$\frac{3}{16}$ "	.1875	.1054	....	* $\frac{3}{4}$ "	.750	1.688	2.148
$\frac{1}{4}$ "	.250	.1875	.2387	$\frac{7}{8}$ "	.875	2.297	2.789
$\frac{5}{16}$ "	.3125	.2931	.3718	1"	1.000	3.000	3.820
* $\frac{3}{8}$ "	.375	.4217	.5371	$1\frac{1}{16}$ "	1.0625	3.23	....
$\frac{7}{16}$ "	.4375	.5742	....	$1\frac{1}{8}$ "	1.125	....	4.62
* $\frac{1}{2}$ "	.500	.7504	.9549	$1\frac{1}{4}$ "	1.250	4.693	....
$\frac{9}{16}$ "	.5625	.9494	....	....	....	....	....

OLYMPIC BRONZE ROD

ROUND—TYPE "A"

Non-Leaded
In Random 12 Foot Lengths

Dia.	Weight Per Ft.	Dia.	Weight Per Ft.	Dia.	Weight Per Ft.
* $\frac{1}{8}$ "	.0457	* $\frac{7}{16}$ "	.5605	* $\frac{7}{8}$ "	2.223
* $\frac{3}{16}$ "	.1029	* $\frac{1}{2}$ "	.7312	* 1"	2.905
* $\frac{1}{4}$ "	.1193	* $\frac{9}{16}$ "	.9261	$1\frac{1}{8}$ "	3.76
* $\frac{5}{16}$ "	.2860	* $\frac{5}{8}$ "	1.1433	$1\frac{1}{4}$ "	4.54
* $\frac{3}{8}$ "	.4110	* $\frac{3}{4}$ "	1.6463	...	....

ROUND—TYPE "D"

Commercial Finish—10 to 12 Feet Long

Dia.	Weight Per Ft.	Dia.	Weight Per Ft.	Dia.	Weight Per Ft.
$\frac{3}{8}$ "	.411	$\frac{5}{8}$ "	1.143	1"	2.93
$\frac{1}{2}$ "	.731	$\frac{3}{4}$ "	1.65	..	....

Type "D" Olympic Bronze applies to the 3% si. with lead alloy which was formerly known as Type B. This has been changed to conform with the designation used in the new A.S.T.M. specifications.



ANGLES AND CHANNELS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

BRASS ANGLE

Half Hard—Lengths of 12 to 14 Feet

Size	B. & S. Gage	Pounds Per Foot	Size	B. & S. Gage	Pounds Per Foot	Size	B. & S. Gage	Pounds Per Foot
$\frac{1}{4}" \times \frac{1}{4}"$	No. 17	.0755	* $\frac{3}{4}" \times \frac{3}{4}"$	$\frac{1}{8}"$	.6341	$1\frac{1}{2}" \times 1\frac{1}{2}"$	$\frac{3}{16}"$	1.9454
$\frac{1}{4}" \times \frac{1}{4}"$	No. 14	.1029	* $\frac{3}{4}" \times \frac{3}{4}"$	No. 14	.3390	* $1\frac{1}{2}" \times 1\frac{1}{2}"$	$\frac{1}{8}"$	1.3258
$\frac{3}{8}" \times \frac{3}{8}"$	No. 18	.1057	$\frac{3}{4}" \times \frac{3}{4}"$	No. 20	.1725	$1\frac{1}{2}" \times 1\frac{1}{2}"$	$\frac{1}{16}"$	.6786
$\frac{3}{8}" \times \frac{3}{8}"$	$\frac{1}{16}"$	.1588	$1" \times 1"$	$\frac{1}{16}"$	.4467	$1\frac{1}{2}" \times 1\frac{1}{2}"$	No. 14	.6932
$\frac{1}{2}" \times \frac{1}{2}"$	$\frac{1}{16}"$	.2162	* $1" \times 1"$	$\frac{1}{8}"$	.8646	$2" \times 2"$	$\frac{1}{4}"$	3.465
* $\frac{1}{2}" \times \frac{1}{2}"$	$\frac{1}{8}"$	.4035	$1" \times 1"$	$\frac{3}{16}"$	1.256	$2" \times 2"$	$\frac{3}{16}"$	2.642
* $\frac{1}{2}" \times \frac{1}{2}"$	No. 14	.2210	* $1" \times 1"$	No. 14	.4571	$2" \times 2"$	$\frac{1}{8}"$	1.7869
$\frac{5}{8}" \times \frac{5}{8}"$	No. 16	.2260	$1\frac{1}{4}" \times 1\frac{1}{4}"$	$\frac{3}{16}"$	1.603	$2\frac{1}{2}" \times 2\frac{1}{2}"$	$\frac{1}{4}"$	4.389
$\frac{5}{8}" \times \frac{5}{8}"$	No. 14	.2800	* $1\frac{1}{4}" \times 1\frac{1}{4}"$	$\frac{1}{8}"$	1.0952	$3" \times 3"$	$\frac{1}{4}"$	5.313
$\frac{5}{8}" \times \frac{5}{8}"$	No. 11	.3891	$1\frac{1}{4}" \times 1\frac{1}{4}"$	No. 14	.5741	.....	.....	.....
$\frac{3}{4}" \times \frac{3}{4}"$	$\frac{1}{16}"$	.3314	$1\frac{1}{2}" \times 1\frac{1}{2}"$	$\frac{1}{4}"$	2.541	.....	.....	.....

BRASS CHANNEL

Half Hard—Lengths of 12 to 14 Feet

Size	Thickness in Inches and B. & S. Gage No.	Pounds Per Foot	Size	Thickness in Inches and B. & S. Gage No.	Pounds Per Foot
$\frac{1}{4}" \times \frac{1}{4}" \times \frac{1}{4}"$	No. 18	.0995	$\frac{3}{8}" \times \frac{3}{4}" \times \frac{3}{8}"$	No. 14	.3240
$\frac{3}{8}" \times \frac{3}{8}" \times \frac{3}{8}"$	No. 18	.1553	$\frac{3}{8}" \times \frac{3}{4}" \times \frac{3}{8}"$	No. 18	.2110
$\frac{3}{8}" \times \frac{1}{2}" \times \frac{3}{8}"$	No. 14	.2649	$\frac{1}{2}" \times \frac{1}{2}" \times \frac{1}{2}"$	$\frac{3}{32}"$	.4516
$\frac{3}{8}" \times \frac{1}{2}" \times \frac{3}{8}"$	No. 18	.1739	$\frac{1}{2}" \times \frac{3}{4}" \times \frac{1}{2}"$	$\frac{3}{32}"$	.5300
$\frac{3}{8}" \times \frac{1}{2}" \times \frac{3}{8}"$	$\frac{3}{32}"$	.4100	$\frac{1}{2}" \times 1" \times \frac{1}{2}"$	$\frac{1}{8}"$	.8100
$\frac{3}{8}" \times \frac{5}{8}" \times \frac{3}{8}"$	No. 14	.2944	$\frac{1}{2}" \times 1\frac{1}{4}" \times \frac{1}{2}"$	$\frac{1}{8}"$	.9300
$\frac{3}{8}" \times \frac{5}{8}" \times \frac{3}{8}"$	No. 18	.1924	$\frac{1}{2}" \times 1\frac{1}{2}" \times \frac{1}{2}"$	$\frac{1}{8}"$	1.040
$\frac{3}{8}" \times \frac{3}{4}" \times \frac{3}{8}"$	$\frac{3}{32}"$	.4500			

COMMERCIAL BRONZE ANGLE

Lengths of 12 to 14 Feet

Size	B. & S. Gage	Pounds Per Foot
$\frac{3}{4}" \times \frac{3}{4}"$	No. 10	.5442
$1" \times 1"$	No. 8	.9186
$1\frac{1}{4}" \times 1\frac{1}{4}"$	No. 8	1.164
$1\frac{1}{2}" \times 1\frac{1}{2}"$	No. 8	1.409
$2" \times 2"$	No. 8	1.900

COMMERCIAL BRONZE CHANNEL

Lengths of 12 to 14 Feet

Size	B. & S. Gage	Pounds Per Foot
$\frac{3}{8}" \times \frac{3}{4}" \times \frac{3}{8}"$	No. 10	.650
$\frac{3}{8}" \times \frac{3}{4}" \times \frac{3}{8}"$	No. 14	.427
$\frac{1}{2}" \times 1" \times \frac{1}{2}"$	No. 12	.722
$\frac{1}{2}" \times 1\frac{1}{2}" \times \frac{1}{2}"$	No. 12	1.030



CHAMET BRONZE ROD

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

ROUND

Lengths of 8 to 12 Feet

Diameter in Inches and Decimal Equivalent		Pounds Per Foot	Diameter in Inches and Decimal Equivalent		Pounds Per Foot
$\frac{1}{8}$ "	.125	.0447	$1\frac{5}{16}$ "	1.3125	4.93
$\frac{3}{16}$ "	.1875	.1006	$1\frac{3}{8}$ "	1.375	5.41
$\frac{1}{4}$ "	.250	.1788	$1\frac{7}{16}$ "	1.4375	5.91
$\frac{5}{16}$ "	.3125	.2793	$1\frac{1}{2}$ "	1.500	6.44
$\frac{3}{8}$ "	.375	.402	$1\frac{5}{8}$ "	1.625	7.56
$\frac{7}{16}$ "	.4375	.548	$1\frac{3}{4}$ "	1.750	8.76
$\frac{1}{2}$ "	.500	.715	$1\frac{7}{8}$ "	1.875	10.06
$\frac{9}{16}$ "	.5625	.905	2"	2.000	11.45
$\frac{5}{8}$ "	.625	1.118	$2\frac{1}{8}$ "	2.125	.....
$1\frac{1}{16}$ "	.6875	1.353	$2\frac{1}{4}$ "	2.250	14.49
$\frac{3}{4}$ "	.750	1.610	$2\frac{3}{8}$ "	2.375	16.14
$1\frac{1}{16}$ "	.8125	1.889	$2\frac{1}{2}$ "	2.500	17.88
$\frac{7}{8}$ "	.875	2.192	$2\frac{3}{4}$ "	2.750	21.62
$1\frac{5}{16}$ "	.9375	2.524	3"	3.000	25.81
1"	1.000	2.859	$3\frac{1}{4}$ "	3.250	30.2
$1\frac{1}{16}$ "	1.0625	3.23	$3\frac{1}{2}$ "	3.500	35.1
$1\frac{1}{8}$ "	1.125	3.62	$3\frac{3}{4}$ "	3.750	40.2
$1\frac{3}{16}$ "	1.1875	4.04	4"	4.000	45.8
$1\frac{1}{4}$ "	1.250	4.47			

Rods

ROUND—Leaded

Lengths of 8 to 12 Feet

Diameter in Inches and Decimal Equivalent		Pounds Per Foot	Diameter in Inches and Decimal Equivalent		Pounds Per Foot
$\frac{1}{4}$ "	.250	.1788	$1\frac{1}{8}$ "	1.125	3.62
$\frac{5}{16}$ "	.3125	.2793	$1\frac{1}{4}$ "	1.250	4.47
$\frac{3}{8}$ "	.375	.402	$1\frac{3}{8}$ "	1.375	5.41
$\frac{1}{2}$ "	.500	.715	$1\frac{1}{2}$ "	1.500	6.44
$\frac{5}{8}$ "	.625	1.118	$1\frac{3}{4}$ "	1.750	8.76
$\frac{3}{4}$ "	.750	1.610	2"	2.000	11.45
$\frac{7}{8}$ "	.875	2.192	$2\frac{1}{2}$ "	2.500	17.88
1"	1.000	2.859	3"	3.000	25.81



CHAMET BRONZE ROD

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

HEXAGON
Lengths of 8 to 12 Feet

Diameter	Pounds Per Foot	Diameter	Pounds Per Foot	Diameter	Pounds Per Foot
$\frac{3}{8}$ "	.444	$\frac{7}{8}$ "	2.423	$1\frac{1}{16}$ "	6.52
$\frac{1}{2}$ "	.789	1"	3.16	$1\frac{1}{2}$ "	7.10
$\frac{9}{16}$ "	.998	$1\frac{1}{16}$ "	3.56	$1\frac{5}{8}$ "	8.33
$\frac{5}{8}$ "	1.232	$1\frac{1}{8}$ "	3.99	2"	12.62
$\frac{3}{4}$ "	1.775	$1\frac{1}{4}$ "	4.93		

NAVAL BRASS ROD

ROUND—Non-Leaded †
Lengths of 8 to 12 Feet

Diameter	Pounds Per Foot	Diameter	Pounds Per Foot	Diameter	Pounds Per Foot
* $\frac{3}{16}$ "	.1006	* $\frac{7}{8}$ "	2.191	* $1\frac{5}{8}$ "	7.56
* $\frac{1}{4}$ "	.1789	* $1\frac{5}{16}$ "	2.516	* $1\frac{3}{4}$ "	8.76
* $\frac{5}{16}$ "	.2796	*1"	2.863	* $1\frac{7}{8}$ "	10.07
* $\frac{3}{8}$ "	.402	* $1\frac{1}{16}$ "	3.23	*2"	11.45
* $\frac{7}{16}$ "	.548	* $1\frac{1}{8}$ "	3.63	* $2\frac{1}{4}$ "	14.49
* $\frac{1}{2}$ "	.715	* $1\frac{3}{16}$ "	4.04	* $2\frac{1}{2}$ "	17.89
* $\frac{9}{16}$ "	.906	* $1\frac{1}{4}$ "	4.48	* $2\frac{3}{4}$ "	21.65
* $\frac{5}{8}$ "	1.118	$1\frac{3}{16}$ "	4.93	*3"	25.76
* $1\frac{1}{16}$ "	1.353	* $1\frac{3}{8}$ "	5.41	$3\frac{1}{2}$ "	35.1
* $\frac{3}{4}$ "	1.610	* $1\frac{7}{16}$ "	5.92	$3\frac{3}{4}$ "	40.2
$1\frac{1}{8}$ "	1.890	* $1\frac{1}{2}$ "	6.44	4"	45.8

† Milwaukee stock leaded.

HEXAGON LEADED
Lengths of 8 to 12 Feet

Diameter	Pounds Per Foot	Diameter	Pounds Per Foot	Diameter	Pounds Per Foot
* $\frac{1}{4}$ "	.1972	* $\frac{5}{8}$ "	1.233	* $1\frac{1}{8}$ "	4.00
* $\frac{5}{16}$ "	.308	* $1\frac{1}{16}$ "	1.492	$1\frac{3}{16}$ "	4.45
* $\frac{3}{8}$ "	.444	* $\frac{3}{4}$ "	1.775	* $1\frac{1}{4}$ "	4.94
* $\frac{7}{16}$ "	.604	* $\frac{7}{8}$ "	2.416	* $1\frac{3}{8}$ "	5.97
* $\frac{1}{2}$ "	.788	1"	3.16	* $1\frac{1}{2}$ "	7.10
* $\frac{9}{16}$ "	.999	* $1\frac{1}{16}$ "	3.56	* $1\frac{5}{8}$ "	8.33

HARDWARE BRONZE ROD

Round		Square	
Diameter	Pounds Per Ft.	Diameter	Pounds Per Ft.
$\frac{3}{8}$ "	.421	$\frac{3}{8}$ "	.537
$\frac{1}{2}$ "	.749	$\frac{1}{2}$ "	.954
$\frac{5}{8}$ "	1.171	$\frac{5}{8}$ "	1.491



PHOSPHOR BRONZE ROD

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

ROUND—FREE TURNING
In 10 to 12 Foot Mill Lengths

Diameter	Pounds Per Foot	Diameter	Pounds Per Foot	Diameter	Pounds Per Foot
$\frac{1}{8}$ "	.0474	* $\frac{1}{2}$ "	.758	* $1\frac{1}{4}$ "	4.74
* $\frac{3}{16}$ "	.1065	* $\frac{9}{16}$ "	.959	$1\frac{3}{8}$ "	5.73
$\frac{7}{32}$ "	.1492	* $\frac{5}{8}$ "	1.184	* $1\frac{1}{2}$ "	6.82
* $\frac{1}{4}$ "	.1894	* $\frac{3}{4}$ "	1.705	$1\frac{3}{4}$ "	9.28
* $\frac{5}{16}$ "	.2961	* $\frac{7}{8}$ "	2.320	$1\frac{7}{8}$ "	10.68
* $\frac{3}{8}$ "	.426	* 1"	3.03	* 2"	12.12
$\frac{7}{16}$ "	.580	* $1\frac{1}{8}$ "	3.84		

Rods

HARD DRAWN COPPER ROD

Lengths of 10 to 12 Feet
Round

Diameter	Pounds Per Foot	Diameter	Pounds Per Foot	Diameter	Pounds Per Foot
* $\frac{1}{8}$ "	.0474	$1\frac{1}{16}$ "	1.432	$1\frac{5}{8}$ "	8.00
* $\frac{5}{32}$ "	.0740	* $\frac{3}{4}$ " †	1.705	$1\frac{3}{4}$ "	9.28
$\frac{3}{16}$ "	.1065	* $\frac{7}{8}$ " †	2.320	* 2"	12.12
* $\frac{1}{4}$ "	.1894	$1\frac{5}{16}$ "	2.663	$2\frac{1}{4}$ "	15.34
* $\frac{5}{16}$ " †	.2961	* 1"	3.03	$2\frac{3}{8}$ "	17.09
* $\frac{3}{8}$ " †	.426	$1\frac{1}{16}$ "	3.42	* $2\frac{1}{2}$ "	18.94
* $\frac{7}{16}$ "	.580	* $1\frac{1}{8}$ " †	3.84	3"	27.32
* $\frac{1}{2}$ " †	.758	* $1\frac{1}{4}$ "	4.74	$3\frac{1}{2}$ "	37.1
$\frac{9}{16}$ "	.959	* $\frac{3}{8}$ "	5.73		
* $\frac{5}{8}$ " †	1.184	* $1\frac{1}{2}$ "	6.82		
Square					
$\frac{3}{16}$ "	.1356	* $\frac{5}{8}$ "	1.507	$1\frac{1}{2}$ "	8.68
* $\frac{1}{4}$ "	.241	* $\frac{3}{4}$ "	2.171	$1\frac{3}{4}$ "	11.82
$\frac{5}{16}$ "	.377	$\frac{7}{8}$ "	2.951	2"	15.43
* $\frac{3}{8}$ "	.543	1"	3.86	$2\frac{1}{2}$ "	24.12
* $\frac{1}{2}$ "	.965	$1\frac{1}{4}$ "	6.03		

† Also stocks of leaded 1% copper rod in these round sizes.

EXTRA HARD DRAWN

Round—12 Ft. Random Lengths

Diameter	Pounds Per Foot	Diameter	Pounds Per Foot
$\frac{3}{4}$ "	1.705	1"	3.03
$\frac{7}{8}$ "	2.320	.....	.....

HARD DRAWN HEXAGON

10 to 12 Ft. Lengths

Diameter	Pounds Per Foot	Diameter	Pounds Per Foot
$\frac{1}{2}$ "	.835	$\frac{7}{8}$ "	2.558
$\frac{3}{4}$ "	1.880	1"	3.34



DRAWN RECTANGULAR COPPER ROD

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

HARD TEMPER

Lengths of 10 to 12 Feet

Suitable for Bus Bar Work

Dimensions	Pounds Per Foot	Dimensions	Pounds Per Foot	Dimensions	Pounds Per Foot
$\frac{1}{16}" \times \frac{3}{8}"$	.0908	* $\frac{3}{16}" \times 1"$	.727	* $\frac{3}{8}" \times 1\frac{1}{2}"$	2.180
$\frac{1}{16}" \times \frac{1}{2}"$	.1211	* $\frac{3}{16}" \times 1\frac{1}{4}"$	.908	$\frac{3}{8}" \times 1\frac{3}{4}"$	2.520
$\frac{1}{16}" \times \frac{5}{8}"$	.1514	* $\frac{3}{16}" \times 1\frac{1}{2}"$	1.090	* $\frac{3}{8}" \times 2"$	2.907
$\frac{1}{16}" \times \frac{3}{4}"$	.1817	$\frac{3}{16}" \times 1\frac{3}{4}"$	1.272	$\frac{3}{8}" \times 2\frac{1}{2}"$	3.63
$\frac{1}{16}" \times \frac{7}{8}"$	.2120	* $\frac{3}{16}" \times 2"$	1.454	* $\frac{3}{8}" \times 3"$	4.36
$\frac{1}{16}" \times 1"$	.2423	$\frac{3}{16}" \times 2\frac{1}{2}"$	1.817	$\frac{3}{8}" \times 4"$	5.914
$\frac{1}{16}" \times 1\frac{1}{4}"$	.300	$\frac{3}{16}" \times 3"$	2.180	$\frac{3}{8}" \times 6"$	8.72
$\frac{1}{16}" \times 1\frac{1}{2}"$	.363	$\frac{3}{16}" \times 4"$	2.907	$\frac{1}{2}" \times \frac{1}{4}"$	.485
$\frac{1}{16}" \times 2"$	.485	* $\frac{1}{4}" \times \frac{3}{8}"$	.363	$\frac{1}{2}" \times \frac{3}{4}"$	1.454
$\frac{1}{16}" \times 3"$	.727	* $\frac{1}{4}" \times \frac{1}{2}"$	.485	$\frac{1}{2}" \times 1"$	1.938
$\frac{3}{32}" \times \frac{3}{8}"$	.1363	* $\frac{1}{4}" \times \frac{5}{8}"$	.606	$\frac{1}{2}" \times 1\frac{1}{4}"$	2.400
$\frac{3}{32}" \times \frac{1}{2}"$	.1817	* $\frac{1}{4}" \times \frac{3}{4}"$	.727	$\frac{1}{2}" \times 1\frac{1}{2}"$	2.907
$\frac{3}{32}" \times \frac{5}{8}"$	.2271	$\frac{1}{4}" \times \frac{7}{8}"$	.848	$\frac{1}{2}" \times 1\frac{3}{4}"$	3.360
$\frac{3}{32}" \times \frac{3}{4}"$	.2725	* $\frac{1}{4}" \times 1"$	.969	* $\frac{1}{2}" \times 2"$	3.88
$\frac{3}{32}" \times 1"$	.363	* $\frac{1}{4}" \times 1\frac{1}{4}"$	1.211	$\frac{1}{2}" \times 2\frac{1}{4}"$	4.32
$\frac{3}{32}" \times 1\frac{1}{4}"$	.454	* $\frac{1}{4}" \times 1\frac{1}{2}"$	1.454	$\frac{1}{2}" \times 2\frac{1}{2}"$	4.80
$\frac{3}{32}" \times 1\frac{1}{2}"$	.545	* $\frac{1}{4}" \times 1\frac{3}{4}"$	1.696	$\frac{1}{2}" \times 3"$	5.81
$\frac{1}{8}" \times \frac{1}{4}"$	.1211	* $\frac{1}{4}" \times 2"$	1.938	$\frac{1}{2}" \times 4"$	7.75
* $\frac{1}{8}" \times \frac{3}{8}"$	.1817	$\frac{1}{4}" \times 2\frac{1}{4}"$	2.160	$\frac{1}{2}" \times 6"$	11.63
* $\frac{1}{8}" \times \frac{1}{2}"$	.2423	* $\frac{1}{4}" \times 2\frac{1}{2}"$	2.423	$\frac{3}{4}" \times 1"$	2.88
* $\frac{1}{8}" \times \frac{5}{8}"$	.303	* $\frac{1}{4}" \times 3"$	2.907	$\frac{3}{4}" \times 1\frac{1}{2}"$	4.32
* $\frac{1}{8}" \times \frac{3}{4}"$	.363	$\frac{1}{4}" \times 3\frac{1}{2}"$	3.395	$\frac{3}{4}" \times 1\frac{3}{4}"$	5.04
$\frac{1}{8}" \times \frac{7}{8}"$	.424	* $\frac{1}{4}" \times 4"$	3.88	$\frac{3}{4}" \times 2"$	5.816
* $\frac{1}{8}" \times 1"$	.485	* $\frac{1}{4}" \times 5"$	4.85	$\frac{3}{4}" \times 4"$	11.632
* $\frac{1}{8}" \times 1\frac{1}{4}"$	.606	* $\frac{1}{4}" \times 6"$	5.81	1" $\times \frac{3}{4}"$	2.908
* $\frac{1}{8}" \times 1\frac{1}{2}"$	.727	$\frac{1}{4}" \times 8"$	7.760	1" $\times \frac{7}{8}"$	3.392
$\frac{1}{8}" \times 1\frac{3}{4}"$	.848	$\frac{5}{16}" \times 1"$	1.211	1" $\times 1\frac{1}{2}"$	5.814
* $\frac{1}{8}" \times 2"$	.969	$\frac{5}{16}" \times 1\frac{1}{4}"$	1.500	1" $\times 1\frac{3}{4}"$	6.72
$\frac{1}{8}" \times 2\frac{1}{2}"$	1.211	$\frac{5}{16}" \times 1\frac{1}{2}"$	1.817	1" $\times 2"$	7.752
$\frac{1}{8}" \times 3"$	1.454	$\frac{5}{16}" \times 2"$	2.400	1" $\times 2\frac{1}{2}"$	9.600
$\frac{1}{8}" \times 4"$	1.938	$\frac{3}{8}" \times \frac{1}{2}"$	.727	1" $\times 3"$	11.628
* $\frac{3}{16}" \times \frac{3}{8}"$	.270	$\frac{3}{8}" \times \frac{5}{8}"$	.908	1" $\times 4"$	15.43
* $\frac{3}{16}" \times \frac{1}{2}"$	.363	$\frac{3}{8}" \times \frac{3}{4}"$	1.090	$1\frac{1}{32}" \times 4"$	15.99
$\frac{3}{16}" \times \frac{5}{8}"$	.454	$\frac{3}{8}" \times \frac{7}{8}"$	1.260	$1\frac{1}{4}" \times 1\frac{3}{8}"$	6.60
* $\frac{3}{16}" \times \frac{3}{4}"$	.545	* $\frac{3}{8}" \times 1"$	1.454	$1\frac{1}{4}" \times 2"$	9.60
$\frac{3}{16}" \times \frac{7}{8}"$	.636	$\frac{3}{8}" \times 1\frac{1}{4}"$	1.817	$1\frac{1}{4}" \times 3"$	14.40



DRAWN RECTANGULAR COPPER ROD

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses

HARD TEMPER

Lengths of 10 to 12 Feet

Suitable for Bus Bar Work

Dimensions	Pounds Per Foot	Dimensions	Pounds Per Foot	Dimensions	Pounds Per Foot
1 3/8" x 2"	10.56	1 1/2" x 3"	17.28	2" x 2 1/2"	19.20
1 1/2" x 1 3/4"	10.08	1 1/2" x 4"	23.04	2" x 3"	23.04
1 1/2" x 2"	11.52	1 3/4" x 2"	13.44	2" x 4"	30.72
1 1/2" x 2 1/2"	14.40	1 3/4" x 2 1/2"	16.80	2 1/2" x 3"	29.10

Rods

HOT ROLLED COPPER ROD (Black) 1 1/4" 1 1/2" 1 3/4" 2" Square

WELDING ROD

In Standard Lengths of 3 Feet

Brass	Chamet Bronze	Manganese Bronze	Olympic Bronze	Corvic Bronze
* 1/8" (.125)	* 1/8" (.125)	1/8" (.125)	1/8" (.125)	* 1/8" (.125)
* 3/16" (.1875)	* 3/16" (.1875)	3/16" (.1875)	.....	.....
* 1/4" (.250)	* 1/4" (.250)	1/4" (.250)	.....	.....

* Phosphor copper welding rod 1/8".

NICKEL SILVER ROD

15% NICKEL SILVER ROD

Free Turning—Lengths of 10 to 12 Feet

Dia.	Pounds Per Ft.	Dia.	Pounds Per Ft.	Dia.	Pounds Per Ft.
3/16"	.1046	5/16"	.2907	1/2"	.7432
1/4"	.1859	3/8"	.4178	....	....

18% Nickel Silver Leaded Round Rod

In 10 to 12 ft. random mill lengths is carried in stock in size 1 1/4" diameter.

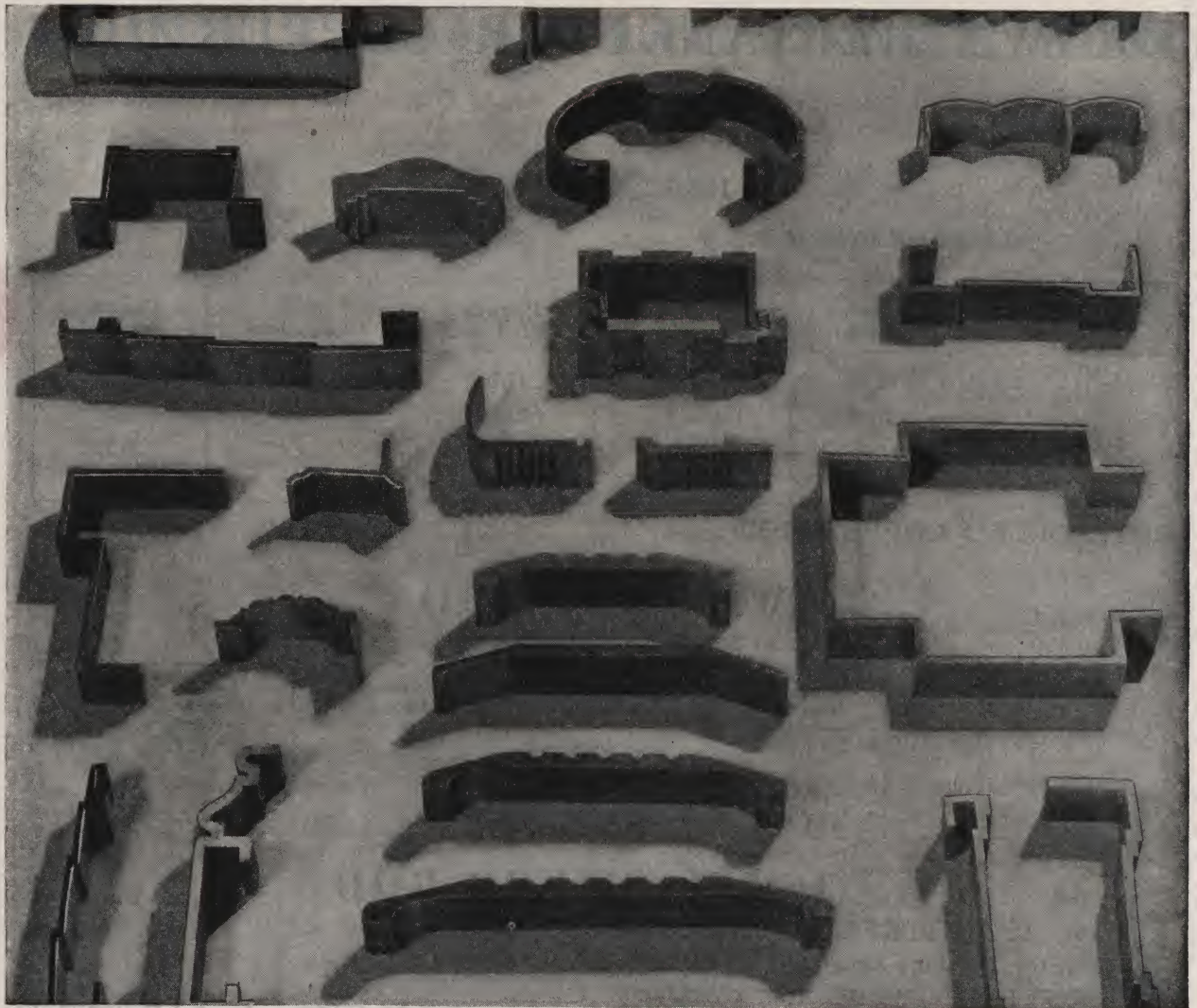
Nickel-Aluminum Bronze Rod
12 Foot Random Lengths

* 3/8" * 1/2" * 5/8"
* 1/16" * 9/16" * 3/4"

DRAWING ROD

This illustration shows Chase Rod being drawn through dies to exact gage and shape requirements. After the finishing draw the rod is dipped and cleaned, then shipped to Chase Warehouses where it is stocked for quick delivery.





ARCHITECTURAL BRONZE EXTRUDED SHAPES

Chase Architectural Bronze is a name given to an alloy of copper when produced in sizes and shapes suitable for architectural construction. Its composition is approximately 58% Copper, 39% Zinc, and 3% Lead. The general characteristics are as follows:

- a. A pleasing natural color.
- b. The ability to take various finishes to give full rich tones.
- c. An excellent resistance to corrosion.
- d. High strength and hardness.
- e. Ease of cutting and machining.

- f. The capacity of the alloy for being extruded into intricate shapes.

The natural color of this alloy is a golden bronze which is much in demand. This color may be permanently preserved on all interior work by a coat of clear lacquer. On outdoor exposures a superficial oxidation tends to darken the color. This darkened bronze tone is one of great dignity and richness.

The tensile strength of ordinary extruded architectural bronze shapes is approximately 60,000 lbs. per square inch. This is about the same as ordinary structural steel.



Wire



CHASE WIRE IN COILS

BRASS

PHOSPHOR BRONZE

COPPER

OLYMPIC BRONZE



BRASS WIRE

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses

BRASS—B. & S. GAGE

BRASS—STUBS GAGE

The approximate weight per 1000 feet listed below indicates sizes carried in stock.

B. & S. Gage	Hard Temper	Half Hard Temper	Spring Temper	Soft Temper
1	....	....	241.6	....
.281	....	....	....	221.7
2	....	....	191.1	191.1
2½	....	....	....	173.2
3	....	....	....	151.7
3½	....	....	....	138.6
4	120.4	120.4	120.4	120.4
4½	....	....	....	109.8
5	94.8	* 94.8	94.8	94.8
5½	....	....	....	86.7
6	75.9	* 75.9	* 75.9	* 75.9
7	60.00	60.00	60.00	60.00
8	47.4	* 47.4	* 47.4	* 47.4
.118	....	....	....	42.8
9	37.6	* 37.6	37.6	37.6
10	29.51	* 29.51	* 29.51	* 29.51
11	23.43	* 23.43	23.43	* 23.43
.089	....	....	....	20.87
12	18.83	* 18.83	* 18.83	* 18.83
13	14.95	* 14.95	14.95	* 14.95
14	11.85	* 11.85	* 11.85	* 11.85
15	9.41	9.41	9.41	9.41
16	7.47	* 7.47	* 7.47	* 7.47
17	....	....	5.91	5.91
18	....	4.70	* 4.70	* 4.70
19	....	3.73	3.73	3.73
20	....	....	* 2.951†	* 2.951†
21	....	....	* 2.356†	* 2.356†
22	....	....	* 1.861†	* 1.861†
23	....	....	* 1.465†	* 1.465†
24	....	....	* 1.169†	* 1.169†
25	....	....	* .942†	* .942†
26	....	....	* .7328†	* .7328†

Stubs Gage	Low Brass Soft	Half Hard Temper	Spring Temper	Soft Temper
⅝"	....	....	283.20	....
¾"	....	....	101.90	....
6	....	119.382	....	....
7	93.863	....	93.863	93.863
8	....	78.871	78.871	78.871
9	....	* 63.456	....	63.456
10	52.019	52.019	* 52.019	52.019
11	41.717	* 41.717	41.717	41.717
12	34.419	34.419	34.419	34.419
13	26.151	26.151	26.151	26.151
14	19.957	19.957	19.957	19.957
15	15.018	15.018	15.018	15.018
16	12.240	12.240	12.240	12.240
17	9.746	9.746	9.746	9.746
18	6.956	6.956	6.956	6.956
19	5.110	5.110	5.110	5.110
20	3.549	3.549	3.549	3.549
21	2.967	....	2.967	2.967
22	....	....	2.356	2.356
23	....	....	1.811	1.811
24	....	....	....	1.402
25	....	....	1.159	1.159

FLAT BRASS WIRE

Round Edge

Brass and Commercial Bronze Wire drawn flat with a round edge is carried in stock in the following size: ⅛" x ¼".

COPPER ANTENNÆ WIRE

Copper Antennæ Wire is stocked in 100 ft. coils, 7 strand Plain No. 22 B. & S. Gage, and Solid Plain No. 14 B. & S. Gage.

† Stocked in 1 lb. hardware spools.



BRASS AND COPPER WIRE

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

COPPER WIRE

Soft Temper—In Coils

The approximate weight per 1000 lineal feet listed below indicates sizes carried in stock

Gage Number	B. & S. Gage	Stubs Gage
2	*201.6	.....
3	159.6	.....
4	*126.7	.....
5	*100.8	.....
6	* 79.7	.....
7	63.10	.....
8	* 50.3	.....
9	* 39.6	.....
10	* 31.7	54.433
11	* 25.04	43.661
12	* 19.87	36.023
13	15.76	27.364
14	* 12.49	20.887
15	9.91	15.718
16	* 7.86	12.810
17	6.24	10.200
18	* 4.94	7.280
19	3.92	5.348
20	* 3.11 †	3.714
21	* 2.456 †	3.105
22	* 1.956 †	2.377
23	* 1.549 †	1.895
24	* 1.230 †	1.467
25	* .975 †	1.213
26	* .773 †	.....
27	.614	.776
3/16" dia.	106.5	.....
1/4" dia.	189.4	.....
5/16" dia.	296.1	.....
3/8" dia.	426.0	.....

† Stocked in 1 lb. hardware spools.

LOW BRASS WIRE

Soft Temper—In 30-40 Lb. Coils

B. & S. Gage	Decimal Equiv.	B. & S. Gage	Decimal Equiv.
000	.410	12	.081
00	.365	13	.072
0	.325	14	.064
2	.258	15	.057
4	.204	16	.051
6	.162	18	.0403
7	.144	20	.0320
8	.129	22	.0254
10	.102	24	.0201
11	.091	26	.0159

Wire

HIGH BRASS WIRE

1/2 Nos. Hard

High Brass Wire, 1/2 Nos. Hard is carried in stock in the following diameters: .092, .114, .140, .158, .165, .184, .205, .210, .268, .328.

1 No. Hard

High Brass Wire, 1 No. Hard is carried in stock in No. 13 B. & S. Gage and No. 15 B. & S. Gage Diameters.

2 Nos. Hard

High Brass Wire, 2 Nos. Hard is carried in stock in No. 13 B. & S. Gage and No. 15 B. & S. Gage Diameters.

COPPER WIRE

* Hard Drawn

Hard Drawn Copper Wire is carried in stock in No.*12 B. & S. Gage Diameter.



BRONZE WIRE

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

PHOSPHOR BRONZE WIRE

Spring Temper—In Coils

The approximate weight per 1000 lineal feet listed below indicates sizes carried in stock

Gage Number	B. & S. Gage	Stubs Gage
6	78.903	.....
7	62.603	.....
8	49.644	.....
9	39.347	.....
10	31.218	.....
11	24.755	43.43
12	19.633	.....
13	15.568	.....
14	12.345	.....
15	9.792	.....
16	7.765	.....
17	6.159	.....
18	4.883	.....
19	3.873	.....
20	3.071	3.683
21	2.435	.....
22	1.932	.....
24	1.215	.....

OLYMPIC BRONZE WIRE

Spring Temper—Mill Coils

B. & S. Gage No.	Approximate Weight Per 1000 Lineal Ft.	B. & S. Gage No.	Approximate Weight Per 1000 Lineal Ft.
5	98.41	14	11.97
6	76.66	15	9.50
7	62.91	16	7.54
8	47.87	17	5.97
9	37.97	18	4.91
10	29.80	19	3.96
11	23.67	20	2.98
12	19.02	22	1.15
13	15.01		

Soft Brass Welding Wire

Soft Brass Welding Wire is carried in stock in the following diameters: $\frac{1}{8}$ ", $\frac{3}{16}$ ", $\frac{1}{4}$ ".

Brass Pin Wire

Brass Pin Wire is carried in stock in the following diameters: .0785, .0335, .030, .036, .041, .050.

10% Nickel Silver Wire

10% Nickel Silver Wire is carried in stock in B. & S. Gage No. 14 and No. 16 diameters.



ROD AND WIRE

Chase brass rod and wire are exact in gage and sound in quality. The illustration shows the wire being drawn through dies from a larger to a smaller size.

The largest users of brass rod and wire are manufacturers of screw machine products, machine screws, pins and wire screening.



SEAMLESS BRASS TUBING

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses

HARD DRAWN—ROUND
In 12 to 14 Foot Lengths

Outside Diameter	Wall Thickness	Nearest Gage No.	Approx. Weight Per Ft.	Outside Diameter	Wall Thickness	Nearest Gage No.	Approx. Weight Per Ft.
1/8"	.0159	26 B. & S.	.020	5/16"	.0359	19 B. & S.	.114
1/8"	.035	20 Stubs	.036	* 5/16"	.035	20 Stubs	.113
1/8"	.032	21 Stubs	.034	5/16"	.032	21 Stubs	.104
1/8"	.0254	22 B. & S.	.031	5/16"	.028	22 Stubs	.090
* 5/32"	.0159	26 B. & S.	.026	5/16"	.0254	22 B. & S.	.085
5/32"	.032	21 Stubs	.046	5/16"	.025	23 Stubs	.083
3/16"	.049	18 Stubs	.079	5/16"	.020	25 Stubs	.068
3/16"	.042	19 Stubs	.071	5/16"	.0159	26 B. & S.	.054
3/16"	.0403	18 B. & S.	.068	3/8"	.093	13 Stubs	.308
3/16"	.035	20 Stubs	.062	3/8"	.083	14 Stubs	.280
* 3/16"	.032	21 Stubs	.058	* 3/8"	.065	16 Stubs	.233
3/16"	.028	22 Stubs	.052	3/8"	.0641	14 B. & S.	.233
3/16"	.0254	22 B. & S.	.048	3/8"	.0508	16 B. & S.	.193
3/16"	.025	23 Stubs	.047	3/8"	.049	18 Stubs	.185
3/16"	.0159	26 B. & S.	.031	* 3/8"	.042	19 Stubs	.162
7/32"	.016	27 Stubs	.038	3/8"	.0403	18 B. & S.	.158
7/32"	.032	21 Stubs	.069	* 3/8"	.035	20 Stubs	.138
1/4"	.065	16 Stubs	.139	3/8"	.032	21 Stubs	.128
1/4"	.0641	14 B. & S.	.14	3/8"	.0285	21 B. & S.	.115
1/4"	.049	18 Stubs	.114	3/8"	.028	22 Stubs	.112
1/4"	.042	19 Stubs	.101	3/8"	.0254	22 B. & S.	.104
1/4"	.0403	18 B. & S.	.099	3/8"	.025	23 Stubs	.101
1/4"	.0359	19 B. & S.	.089	3/8"	.0201	24 B. & S.	.084
1/4"	.035	20 Stubs	.087	25/64"	.0403	18 B. & S.	.162
* 1/4"	.032	21 Stubs	.081	7/16"	.065	16 Stubs	.280
1/4"	.028	22 Stubs	.072	7/16"	.0641	14 B. & S.	.276
1/4"	.0254	22 B. & S.	.067	7/16"	.049	18 Stubs	.220
1/4"	.025	23 Stubs	.065	7/16"	.042	19 Stubs	.192
1/4"	.0159	26 B. & S.	.043	7/16"	.0403	18 B. & S.	.184
9/32"	.032	21 Stubs	.092	* 7/16"	.035	20 Stubs	.163
5/16"	.065	16 Stubs	.186	7/16"	.032	21 Stubs	.150
5/16"	.0641	14 B. & S.	.183	7/16"	.028	22 Stubs	.133
5/16"	.0508	16 B. & S.	.156	7/16"	.0254	22 B. & S.	.120
5/16"	.049	18 Stubs	.150	7/16"	.0201	24 B. & S.	.096
5/16"	.042	19 Stubs	.132	1/2"	.125(1/8)	8 B. & S.	.543
5/16"	.0403	18 B. & S.	.128	1/2"	.083	14 Stubs	.400



SEAMLESS BRASS TUBING

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

HARD DRAWN—ROUND In 12 to 14 Foot Lengths

Outside Diameter	Wall Thickness	Nearest Gage No.	Approximate Weight Per Ft.	Outside Diameter	Wall Thickness	Nearest Gage No.	Approximate Weight Per Ft.
1/2"	.065	16 Stubs	.327	5/8"	.0254	22 B. & S.	.178
* 1/2"	.0641	14 B. & S.	.327	5/8"	.025	23 Stubs	.174
* 1/2"	.058	17 Stubs	.297	* 5/8"	.0201	24 B. & S.	.142
1/2"	.0508	16 B. & S.	.264	5/8"	.0179	25 B. & S.	.126
* 1/2"	.049	18 Stubs	.256	11/16"	.065	16 Stubs	.469
1/2"	.042	19 Stubs	.223	11/16"	.0641	14 B. & S.	.402
1/2"	.0403	18 B. & S.	.217	11/16"	.042	19 Stubs	.314
1/2"	.035	20 Stubs	.188	11/16"	.0403	18 B. & S.	.302
* 1/2"	.032	21 Stubs	.173	11/16"	.032	21 Stubs	.243
1/2"	.0254	22 B. & S.	.141	11/16"	.028	22 Stubs	.214
1/2"	.028	22 Stubs	.137	11/16"	.0254	22 B. & S.	.192
1/2"	.025	23 Stubs	.135	11/16"	.025	23 Stubs	.192
1/2"	.0201	24 B. & S.	.113	11/16"	.0201	24 B. & S.	.155
9/16"	.065	16 Stubs	.374	11/16"	.0179	25 B. & S.	.138
9/16"	.0641	14 B. & S.	.369	3/4"	.128	8 B. & S.	.92
9/16"	.058	17 Stubs	.339	3/4"	.125 (1/8)	8 B. & S.	.904
9/16"	.0508	16 B. & S.	.301	3/4"	.093	13 Stubs	.720
* 9/16"	.049	18 Stubs	.291	3/4"	.083	14 Stubs	.641
9/16"	.0403	18 B. & S.	.242	* 3/4"	.065	16 Stubs	.515
* 9/16"	.035	20 Stubs	.214	3/4"	.0641	14 B. & S.	.515
9/16"	.032	21 Stubs	.196	3/4"	.058	17 Stubs	.464
9/16"	.028	22 Stubs	.173	3/4"	.0508	16 B. & S.	.410
9/16"	.0254	22 B. & S.	.156	3/4"	.049	18 Stubs	.397
5/8"	.128	8 B. & S.	.738	3/4"	.0453	17 B. & S.	.373
5/8"	.125 (1/8)	8 B. & S.	.723	* 3/4"	.042	19 Stubs	.344
5/8"	.093	13 Stubs	.583	3/4"	.0403	18 B. & S.	.355
5/8"	.083	14 Stubs	.520	3/4"	.0359	19 B. & S.	.300
5/8"	.065	16 Stubs	.421	* 3/4"	.035	20 Stubs	.290
* 5/8"	.0641	14 B. & S.	.421	3/4"	.032	21 Stubs	.269
5/8"	.0508	16 B. & S.	.384	3/4"	.0285	21 B. & S.	.240
* 5/8"	.049	18 Stubs	.327	3/4"	.028	20 Stubs	.236
5/8"	.042	19 Stubs	.283	* 3/4"	.0254	22 B. & S.	.215
5/8"	.0403	18 B. & S.	.276	3/4"	.025	23 Stubs	.210
5/8"	.035	20 Stubs	.239	3/4"	.0201	24 B. & S.	.169
* 5/8"	.032	21 Stubs	.222	3/4"	.0179	25 B. & S.	.152
5/8"	.028	22 Stubs	.193	13/16"	.109	12 Stubs	.887

Seamless
Tubes



SEAMLESS BRASS TUBING

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses

HARD DRAWN—ROUND

In 12 to 14 Foot Lengths

Outside Diameter	Wall Thickness	Nearest Gage No.	Approximate Weight Per Ft.	Outside Diameter	Wall Thickness	Nearest Gage No.	Approximate Weight Per Ft.
$\frac{13}{16}$ "	.083	14 Stubs	.701	1"	.0403	18 B. & S.	.453
$\frac{13}{16}$ "	.065	16 Stubs	.562	1"	.035	20 Stubs	.391
$\frac{13}{16}$ "	.0641	14 B. & S.	.555	*1"	.032	21 Stubs	.358
$\frac{13}{16}$ "	.035	20 Stubs	.315	1"	.028	22 Stubs	.315
$\frac{13}{16}$ "	.032	21 Stubs	.289	*1"	.0254	22 B. & S.	.282
$\frac{13}{16}$ "	.028	22 Stubs	.254	1"	.025	23 Stubs	.282
$\frac{13}{16}$ "	.025	23 Stubs	.228	1"	.0201	24 B. & S.	.227
$\frac{7}{8}$ "	.128	8 B. & S.	1.113	1"	.018	26 Stubs	.204
$\frac{7}{8}$ "	.125 ($\frac{1}{8}$)	8 B. & S.	1.085	$1\frac{1}{32}$ "	.083	14 Stubs	.910
$\frac{7}{8}$ "	.093	13 Stubs	.857	$1\frac{1}{16}$ "	.032	21 Stubs	.381
$\frac{7}{8}$ "	.083	14 Stubs	.761	$1\frac{1}{8}$ "	.128	8 B. & S.	1.487
* $\frac{7}{8}$ "	.065	16 Stubs	.609	$1\frac{1}{8}$ "	.125 ($\frac{1}{8}$)	8 B. & S.	1.446
$\frac{7}{8}$ "	.0641	14 B. & S.	.600	$1\frac{1}{8}$ "	.093	13 Stubs	1.132
$\frac{7}{8}$ "	.058	17 Stubs	.548	$1\frac{1}{8}$ "	.083	14 Stubs	1.001
$\frac{7}{8}$ "	.0508	16 B. & S.	.484	$1\frac{1}{8}$ "	.072	15 Stubs	.877
$\frac{7}{8}$ "	.049	18 Stubs	.468	* $1\frac{1}{8}$ "	.065	16 Stubs	.797
$\frac{7}{8}$ "	.042	19 Stubs	.405	$1\frac{1}{8}$ "	.0641	14 B. & S.	.786
* $\frac{7}{8}$ "	.0403	18 B. & S.	.386	$1\frac{1}{8}$ "	.0508	16 B. & S.	.632
* $\frac{7}{8}$ "	.032	21 Stubs	.312	$1\frac{1}{8}$ "	.049	18 Stubs	.610
$\frac{7}{8}$ "	.028	22 Stubs	.274	$1\frac{1}{8}$ "	.042	19 Stubs	.526
$\frac{7}{8}$ "	.0254	22 B. & S.	.246	$1\frac{1}{8}$ "	.0403	18 B. & S.	.502
$\frac{7}{8}$ "	.025	23 Stubs	.246	$1\frac{1}{8}$ "	.032	21 Stubs	.404
$\frac{7}{8}$ "	.0201	24 B. & S.	.198	$1\frac{1}{8}$ "	.028	22 Stubs	.355
$\frac{15}{16}$ "	.125 ($\frac{1}{8}$)	8 B. & S.	1.136	$1\frac{1}{8}$ "	.025	23 Stubs	.318
$\frac{15}{16}$ "	.093	13 Stubs	.923	$1\frac{3}{16}$ "	.065	16 Stubs	.843
$\frac{15}{16}$ "	.065	16 Stubs	.656	$1\frac{3}{16}$ "	.032	21 Stubs	.428
$\frac{15}{16}$ "	.032	21 Stubs	.335	$1\frac{1}{4}$ "	.128	8 B. & S.	1.66
$\frac{15}{16}$ "	.028	22 Stubs	.295	* $1\frac{1}{4}$ "	.125 ($\frac{1}{8}$)	8 B. & S.	1.627
1"	.128	8 B. & S.	1.29	$1\frac{1}{4}$ "	.093	13 Stubs	1.270
*1"	.125 ($\frac{1}{8}$)	8 B. & S.	1.266	$1\frac{1}{4}$ "	.083	14 Stubs	1.120
*1"	.065	16 Stubs	.703	$1\frac{1}{4}$ "	.072	15 Stubs	.981
1"	.0641	14 B. & S.	.702	* $1\frac{1}{4}$ "	.065	16 Stubs	.891
1"	.0508	16 B. & S.	.557	$1\frac{1}{4}$ "	.0641	14 B. & S.	.890
1"	.049	18 Stubs	.539	$1\frac{1}{4}$ "	.0508	16 B. & S.	.705
1"	.0453	17 B. & S.	.506	$1\frac{1}{4}$ "	.049	18 Stubs	.681
1"	.042	19 Stubs	.466	$1\frac{1}{4}$ "	.0453	17 B. & S.	.638



SEAMLESS BRASS TUBING

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

HARD DRAWN—ROUND
In 12 to 14 Foot Lengths

Outside Diameter	Wall Thickness	Nearest Gage No.	Approximate Weight Per Ft.	Outside Diameter	Wall Thickness	Nearest Gage No.	Approximate Weight Per Ft.
1¼"	.042	19 Stubs	.587	1⅝"	.083	14 Stubs	1.481
1¼"	.0403	18 B. & S.	.571	1⅝"	.065	16 Stubs	1.173
1¼"	.0359	19 B. & S.	.510	1⅝"	.049	18 Stubs	.893
* 1¼"	.035	20 Stubs	.492	1⅝"	.0453	17 B. & S.	.823
1¼"	.032	21 Stubs	.451	* 1⅝"	.0403	18 B. & S.	.74
1¼"	.0254	22 B. & S.	.363	1¾"	.128	8 B. & S.	2.40
1¼"	.025	23 Stubs	.354	1¾"	.125 (⅛)	8 B. & S.	2.350
1¼"	.018	26 Stubs	.257	1¾"	.095	13 Stubs	1.82
1⅝"	.093	13 Stubs	1.342	* 1¾"	.065	16 Stubs	1.27
1⅝"	.065	16 Stubs	.938	1¾"	.0641	14 B. & S.	1.265
1⅝"	.125 (⅛)	8 B. & S.	1.808	1¾"	.0625 (⅛)	14 B. & S.	1.24
1⅝"	.083	14 Stubs	1.241	1¾"	.0571	15 B. & S.	1.131
1⅝"	.065	16 Stubs	.985	1¾"	.049	18 Stubs	.964
1⅝"	.0641	14 B. & S.	.971	1¾"	.0453	17 B. & S.	.903
1⅝"	.049	18 Stubs	.752	1¾"	.0403	18 B. & S.	.807
* 1⅝"	.0453	17 B. & S.	.693	1¾"	.035	20 Stubs	.694
1⅝"	.042	19 Stubs	.648	1¾"	.032	21 Stubs	.636
1⅝"	.0403	18 B. & S.	.618	1⅞"	.125 (⅛)	8 B. & S.	2.537
1⅝"	.032	21 Stubs	.497	1⅞"	.065	16 Stubs	1.361
1½"	.128	8 B. & S.	2.03	1⅞"	.050	18 Stubs	1.035
* 1½"	.125 (⅛)	8 B. & S.	1.989	1⅞"	.032	21 Stubs	.682
1½"	.083	14 Stubs	1.36	2"	.128	8 B. & S.	2.77
* 1½"	.065	16 Stubs	1.08	* 2"	.125 (⅛)	8 B. & S.	2.71
1½"	.0641	14 B. & S.	1.077	2"	.095	13 Stubs	2.09
1½"	.0571	15 B. & S.	.964	* 2"	.065	16 Stubs	1.46
1½"	.0508	16 B. & S.	.851	2"	.0641	14 B. & S.	1.453
1½"	.049	18 Stubs	.823	2"	.0508	16 B. & S.	1.14
* 1½"	.0453	17 B. & S.	.771	2"	.049	18 Stubs	1.11
1½"	.042	19 Stubs	.708	2"	.0453	17 B. & S.	1.036
1½"	.0403	18 B. & S.	.689	* 2"	.042	19 Stubs	.951
1½"	.0359	19 B. & S.	.615	2"	.0403	18 B. & S.	.925
* 1½"	.035	20 Stubs	.593	2"	.0359	19 B. & S.	.818
1½"	.032	21 Stubs	.544	* 2"	.032	21 Stubs	.729
1½"	.0254	22 B. & S.	.427	2⅛"	.125 (⅛)	8 B. & S.	2.810
1½"	.025	23 Stubs	.427	2⅛"	.072	15 Stubs	1.691
1⅝"	.125 (⅛)	8 B. & S.	2.350	2⅛"	.065	16 Stubs	1.549

Seamless
Tubes



SEAMLESS BRASS TUBING

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

HARD DRAWN—ROUND
 In 12 to 14 Foot Lengths

Outside Diameter	Wall Thickness	Nearest Gage No.	Approximate Weight Per Ft.	Outside Diameter	Wall Thickness	Nearest Gage No.	Approximate Weight Per Ft.
2¼"	.128	8 B. & S.	3.15	3"	.049	18 Stubs	1.67
2¼"	.125 (⅛)	8 B. & S.	3.078	3"	.0453	17 B. & S.	1.566
2¼"	.109	12 Stubs	2.70	3"	.042	19 Stubs	1.44
* 2¼"	.065	16 Stubs	1.64	* 3"	.032	21 Stubs	1.10
2¼"	.0641	14 B. & S.	1.64	3¼"	.134	10 Stubs	4.83
2¼"	.0508	16 B. & S.	1.29	3¼"	.128	8 B. & S.	4.63
2¼"	.049	18 Stubs	1.248	3¼"	.125 (⅛)	8 B. & S.	4.52
* 2¼"	.0453	17 B. & S.	1.168	3¼"	.065	16 Stubs	2.398
2¼"	.0403	18 B. & S.	1.043	3⅝"	.065	16 Stubs	2.481
2⅜"	.128	8 B. & S.	3.352	3½"	.134	10 Stubs	5.22
2⅜"	.065	16 Stubs	1.74	* 3½"	.125 (⅛)	8 B. & S.	4.881
2⅜"	.064	14 B. & S.	1.71	3½"	.065	16 Stubs	2.58
2½"	.128	8 B. & S.	3.52	3¾"	.125 (⅛)	8 B. & S.	5.242
* 2½"	.125 (⅛)	8 B. & S.	3.435	3¾"	.065	16 Stubs	2.771
2½"	.109	12 Stubs	3.02	4"	.134	10 Stubs	5.99
2½"	.083	14 Stubs	2.32	4"	.128	8 B. & S.	5.74
* 2½"	.065	16 Stubs	1.83	* 4"	.125 (⅛)	8 B. & S.	5.604
2½"	.0641	14 B. & S.	1.828	4"	.083	14 Stubs	3.762
2½"	.049	18 Stubs	1.139	* 4"	.065	16 Stubs	2.96
2½"	.0453	17 B. & S.	1.278	4"	.0641	14 B. & S.	2.92
2½"	.042	19 Stubs	1.19	4¼"	.125 (⅛)	8 B. & S.	5.966
2½"	.035	20 Stubs	.998	4¼"	.065	16 Stubs	3.147
* 2½"	.032	21 Stubs	.914	4½"	.125 (⅛)	8 B. & S.	6.327
2½"	.028	22 Stubs	.810	4½"	.065	16 Stubs	3.340
2⅝"	.065	16 Stubs	1.925	4¾"	.125 (⅛)	8 B. & S.	6.69
2¾"	.128	8 B. & S.	3.898	4¾"	.065	16 Stubs	3.523
2¾"	.125 (⅛)	8 B. & S.	3.796	5"	.125 (⅛)	8 B. & S.	7.051
2¾"	.109	12 Stubs	3.33	5"	.120	11 Stubs	6.775
2¾"	.065	16 Stubs	2.02	5"	.109	12 Stubs	6.168
2¾"	.0641	14 B. & S.	1.989	5"	.083	14 Stubs	4.72
3"	.128	8 B. & S.	4.269	* 5"	.065	16 Stubs	3.17
* 3"	.125 (⅛)	8 B. & S.	4.158	5¼"	.125 (⅛)	8 B. & S.	7.41
3"	.120	11 Stubs	3.999	5½"	.125 (⅛)	8 B. & S.	7.77
3"	.083	14 Stubs	2.80	5¾"	.125 (⅛)	8 B. & S.	8.14
* 3"	.065	16 Stubs	2.21	6"	.125 (⅛)	8 B. & S.	8.497
3"	.0641	14 B. & S.	2.203	6"	.065	16 Stubs	4.463



SEAMLESS BRASS TUBING

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

HARD DRAWN—ROUND

In 12 to 14 Foot Lengths

Outside Diameter	Wall Thickness	Nearest Gage No.	Approximate Weight Per Ft.	Outside Diameter	Wall Thickness	Nearest Gage No.	Approximate Weight Per Ft.
6¼"	.125 (⅛)	8 B. & S.	8.858	7¾"	.125 (⅛)	8 B. & S.	10.63
6½"	.125 (⅛)	8 B. & S.	9.22	8"	.125 (⅛)	8 B. & S.	11.38
6¾"	.125 (⅛)	8 B. & S.	9.365	8¼"	.125 (⅛)	8 B. & S.	11.75
7"	.125 (⅛)	8 B. & S.	9.94	8½"	.125 (⅛)	8 B. & S.	11.68
7¼"	.125 (⅛)	8 B. & S.	10.30	10¼"	.125 (⅛)	8 B. & S.	14.65

Hard Drawn—In 3 Foot Lengths

Outside Diameter	Wall Thickness	Nearest Gage No.	Approx. Wgt. Per Ft.
⅛"	.01594	26 B. & S.	.022
⅜"	.01594	26 B. & S.	.035
¼"	.01594	26 B. & S.	.048
⅝"	.01594	26 B. & S.	.061

Semi-Annealed—Round

10 to 12 Foot Lengths

Outside Diameter	Wall Thickness	Nearest Gage No.	Approx. Wgt. Per Ft.
* ⅞"	.050	16 B. & S.	.220
* ½"	.050	16 B. & S.	.256
* 1¼"	.042	19 Stubs	.587
* 1½"	.042	19 Stubs	.708
* 2"	.045	17 B. & S.	.951

Seamless
Tubes

Round—Chromium Plated

Hard Temper—6 Foot Lengths

Approximate weights per lineal foot shown below designate sizes carried in stock

Wall Thickness		Outside Diam. In Inches				
B. & S. Gage	Decimal Equivalent	1¼	1⅜	1½	2	2½
19	.0358	.492	.543	.593	..	..
20	.0319	.449	.495	.54	.725	.914

Round—Nickel Plated

Hard Temper—6 Foot Lengths

Approximate weights per lineal foot shown below designate sizes carried in stock

Wall Thickness		Outside Diam. In Inches				
B. & S. Gage	Decimal Equivalent	1¼	1⅜	1½	2	
19	.0358	.492	.543	.593	...	
20	.0319	.449	...	.54	.725	

Round—Soft Temper

B. & S. Gage—In 12 to 14 Foot Lengths

Approximate weights per lineal foot shown below designate sizes carried in warehouse stocks

Wall Thickness		Outside Diameter in Inches								
B. & S. Gage	Decimal Equivalent	⅛"	⅜"	¼"	5/16"	⅜"	7/16"	½"	5/8"	13/16"
12	.0808	.....	.....	.....	.....	.....	.....	.....	.....	.68
14	.064	.....	.....	.131	.....	.....	.....	.327	.....	.55
16	.0508	.....	.....	.....	.....	.....	.....	.26	.....	.....
18	.0403	.....	.....	.097	.128	.158	.184	.217	.276	.....
19	.0358	.....	.....	.089	.114	.....	.....	.....	.....	.....
20	.032	.....	.....	.058	.104	.....	.....	.....	.....	.....
23	.022	* .026	.....	.....	.....	.....	.....	.....	.....	.....



SEAMLESS BRASS TUBING

SQUARE, HEXAGON, OCTAGON, OVAL, RECTANGULAR AND REEDED

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

Square—Hard Drawn—In 12 to 14 Foot Lengths

Outside Diameter in Inches	Thickness in B. & S. Gage	Approx. Wt. in Lbs. Per Lineal Ft.	Outside Diameter in Inches	Thickness in B. & S. Gage	Approx. Wt. in Lbs. Per Lineal Ft.	Outside Diameter in Inches	Thickness in B. & S. Gage	Approx. Wt. in Lbs. Per Lineal Ft.
1/4"	No. 20	.981	5/8"	No. 18	.3454	1 1/4"	No. 16	.8985
1/4"	No. 22	.0840	5/8"	No. 20	.2779	1 1/4"	No. 18	.7104
5/16"	No. 18	.1597	5/8"	No. 24	.1868	1 1/4"	No. 20	.5862
5/16"	No. 20	.132	3/4"	No. 17	.4732	1 1/4"	No. 22	.4481
5/16"	No. 24	.116	3/4"	No. 18	.4241	1 1/2"	No. 14	1.3785
3/8"	No. 18	.1981	3/4"	No. 20	.344	1 1/2"	No. 16	1.0906
3/8"	No. 20	.1622	3/4"	No. 22	.2725	1 1/2"	No. 18	.8619
3/8"	No. 22	.1308	7/8"	No. 18	.4847	1 1/2"	No. 20	.7129
3/8"	No. 24	.1016	7/8"	No. 20	.3018	1 3/4"	No. 16	1.2815
1/2"	No. 17	.3019	1"	No. 17	.6353	2"	No. 16	1.4714
1/2"	No. 18	.2713	1"	No. 18	.5678	2"	No. 18	1.1616
1/2"	No. 20	.2208	1"	No. 20	.4582	2 1/2"	No. 14	1.6129
5/8"	No. 17	.3851	1 1/8"	No. 16	.8057			

SQUARE—SOFT TEMPER

Chase Square Seamless Brass Tubing is carried in stock in Soft Temper in the following size:

3/8" O. D. x No. 18 B. & S. Gage

OVAL—SOFT TEMPER

Chase Oval Seamless Brass Tubing is carried in stock in Soft Temper in the following sizes:

5/16" x 1/2", No. 18 B. & S. Gage
 3/16" x 3/8", No. 18 B. & S. Gage

HEXAGON—HARD TEMPER

Chase Hexagon Seamless Brass Tubing is carried in stock in Hard Temper in the following sizes:

3/8" O. D.—18 B. & S. Gage
 1/2" O. D.—20 B. & S. Gage
 5/8" O. D.—20 B. & S. Gage
 3/4" O. D.—20 B. & S. Gage
 3/4" O. D.—24 B. & S. Gage
 1" O. D.—20 B. & S. Gage

BRASS PLUMBERS' TUBE

Brass Plumbers' Tube is carried in stock in 12 ft. lengths in the following sizes: 3/4", 7/8".

ROUND ROPE PATTERN— HARD TEMPER

Chase Round Rope Pattern Seamless Brass Tubing is carried in stock in the following size:

3/8" O. D. x No. 18 B. & S. Gage

RECTANGULAR—HARD TEMPER

Chase Rectangular Seamless Brass Tubing is carried in stock in Hard Temper in the following size:

3/8" x 3/4", No. 18 B. & S. Gage

ROUND REEDED—SOFT TEMPER

Chase Round Reeded Seamless Brass Tubing is carried in stock in the following sizes:

3/8" O. D.—18 B. & S. Gage
 7/16" O. D.—18 B. & S. Gage
 1/2" O. D.—18 B. & S. Gage



SEAMLESS BRASS TUBING

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Remaining Sizes Can Be Shipped From Our Other Warehouses

ROUND REEDED—HARD TEMPER

Outside Diameter	B. & S. Gage No.	Outside Diameter	B. & S. Gage No.	Outside Diameter	B. & S. Gage No.
$\frac{3}{8}$ "	No. 18	$\frac{3}{4}$ "	No. 18	$1\frac{1}{4}$ "	No. 25
$\frac{7}{16}$ "	No. 18	$\frac{3}{4}$ "	No. 22	$1\frac{3}{8}$ "	No. 25
$\frac{1}{2}$ "	No. 18	$\frac{3}{4}$ "	No. 24	$1\frac{1}{2}$ "	No. 18
$\frac{1}{2}$ "	No. 22	$\frac{3}{4}$ "	No. 25	$1\frac{1}{2}$ "	No. 22
$\frac{5}{8}$ "	No. 18	$\frac{7}{8}$ "	No. 24	$1\frac{3}{4}$ "	No. 22
$\frac{5}{8}$ "	No. 24	1"	No. 24	2"	No. 17
$\frac{5}{8}$ "	No. 25	1"	No. 25	2"	No. 22
$1\frac{1}{16}$ "	No. 22	$1\frac{1}{8}$ "	No. 25		
$1\frac{1}{16}$ "	No. 25	$1\frac{1}{4}$ "	No. 18		

O. D. SEAMLESS COPPER TUBING

ROUND—SOFT TEMPER—STUBS GAGE

In Coils of 25 Feet

Seamless
Tubes

Outside Diameter in Inches	Thickness in Stubs Gage	Approx. Weight Per Foot	Outside Diameter in Inches	Thickness in Stubs Gage	Approx. Weight Per Foot	Outside Diameter in Inches	Thickness in Stubs Gage	Approx. Weight Per Foot
* $\frac{1}{8}$ "	No. 20	.038	$\frac{5}{16}$ "	No. 21	.110	$\frac{1}{2}$ "	No. 21	.182
$\frac{1}{8}$ "	No. 21	.036	$\frac{3}{8}$ "	No. 16	.245	$\frac{5}{8}$ "	No. 19	.298
$\frac{1}{8}$ "	No. 23	.030	$\frac{3}{8}$ "	No. 18	.194	* $\frac{5}{8}$ "	No. 20	.251
* $\frac{3}{16}$ "	No. 20	.065	$\frac{3}{8}$ "	No. 19	.170	$\frac{5}{8}$ "	No. 21	.231
$\frac{3}{16}$ "	No. 21	.061	* $\frac{3}{8}$ "	No. 20	.145	$\frac{3}{4}$ "	No. 19	.362
$\frac{3}{16}$ "	No. 23	.050	$\frac{3}{8}$ "	No. 21	.134	* $\frac{3}{4}$ "	No. 20	.304
$\frac{1}{4}$ "	No. 18	.120	* $\frac{3}{8}$ "	No. 25	.086	$\frac{3}{4}$ "	No. 21	.280
* $\frac{1}{4}$ "	No. 20	.092	$\frac{7}{16}$ "	No. 20	.171	1"	No. 19	.489
$\frac{1}{4}$ "	No. 21	.085	$\frac{7}{16}$ "	No. 21	.158	1"	No. 20	.411
$\frac{1}{4}$ "	No. 23	.068	$\frac{1}{2}$ "	No. 16	.344	1"	No. 21	.377
$\frac{5}{16}$ "	No. 18	.157	$\frac{1}{2}$ "	No. 18	.269			
* $\frac{5}{16}$ "	No. 20	.119	* $\frac{1}{2}$ "	No. 20	.198			

ROUND—SOFT TEMPER—STUBS GAGE

In 20 Foot Lengths

Outside Diam. in Inches	Thickness in Stubs Gage	Pounds Per Foot	Outside Diam. in Inches	Thickness in Stubs Gage	Pounds Per Foot
$\frac{3}{8}$ "	No. 16	.245	$1\frac{1}{4}$ "	No. 20	.517
$\frac{1}{2}$ "	No. 20	.198	$1\frac{1}{2}$ "	No. 20	.624
$\frac{3}{4}$ "	No. 20	.304	2"	No. 20	.837
1"	No. 20	.411			



O. D. SEAMLESS COPPER TUBING

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

ROUND—SOFT TEMPER—STUBS GAGE In 12 Foot Lengths

Outside Diameter in Inches	Thickness in Stubs Gage	Pounds Per Foot	Outside Diameter in Inches	Thickness in Stubs Gage	Pounds Per Foot	Outside Diameter in Inches	Thickness in Stubs Gage	Pounds Per Foot
1/8"	No. 21	.036	1/4"	No. 23	.068	1/2"	No. 18	.269
1/8"	No. 23	.030	5/16"	No. 20	.119	1/2"	No. 20	.198
3/16"	No. 20	.065	* 5/16"	No. 21	.110	1/2"	No. 21	.182
3/16"	No. 21	.061	3/8"	No. 19	.170	5/8"	No. 20	.251
3/16"	No. 23	.050	3/8"	No. 20	.145	3/4"	No. 20	.304
* 1/4"	No. 20	.092	* 3/8"	No. 21	.134	1"	No. 20	.411
1/4"	No. 21	.085	7/16"	No. 20	.171	1 1/4"	No. 20	.517

* B. & S. Gage—Soft—12 foot lengths carried in stock in 3/16" x 20 B. & S. Gage

Also 1/8", 1/4", 5/16", 3/8", 1/2", all .032 wall.

ROUND—HARD DRAWN

In 12 Foot Lengths

Approximate weights in pounds per lineal foot shown below designate sizes carried in stock

Outside Diameter in Inches	Thickness of Wall in Stubs Gage							
	(1/4") .250	8	10	11	1 1/8"	12	13	14
3/4"	1.004	....	....	....	....	....
1"	1.289	....	....	.926
1 1/4"	2.178	....	....	....	....	....	1.18
1 3/8"	1.304
1 1/2"	2.092	1.84	....	1.43
1 5/8"	1.55
1 3/4"	3.480	....	1.91	....
2"	3.683	3.04	....	2.852	....	2.20	1.94
2 1/4"	3.45	....	3.129	2.84	....	....
2 1/2"	3.86	....	....	3.17	....	* 2.44
3"	5.69	4.67	4.204	4.37	3.83	....	* 2.95
3 1/4"	5.079	....	....	....	....	....
3 1/2"	6.69	5.49	....	....	4.50	....	3.45
3 3/4"	5.89	....	....	....	....	....
4"	7.70	6.30	....	....	5.16	....	3.96
4 1/4"	6.71	....	....	....	....	....
4 1/2"	7.12	....	....	....	....	....
4 3/4"	7.52	....	....	....	....	....
5"	14.94	....	7.93	....	....	....	....	4.97
6"	11.71	9.56	....	....	....	....	5.97
7"	13.72	....	....	....	....	....	....



O. D. SEAMLESS COPPER TUBING

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

ROUND—HARD DRAWN

In 12 Foot Lengths

Approximate weights in pounds per lineal foot shown below designate sizes carried in stock

Outside Diameter in Inches	Thickness of Wall in Stubs Gage							
	16	17	18	19	20	21	23	26
1/8"	.....	.....	.....	.....	.....	.036	.....	.....
3/16"	.....	.....	.....	.....	.....	.061	.....	.....
1/4"	.146	.....	.....	.106	.092	.....	.....	.051
5/16"	.196	.....	.....	.....	.119	.....	.....	.....
3/8"	.245	.....	.....	.170	.145	.....	.....	.....
7/16"	.....	.....	.....	.202	.....	.....	.....	.....
1/2"	*.344	.....	.269	.....	.198	.....	.....	.....
9/16"	.....	.....	.306	.....	.....	.....	.....	.....
5/8"	*.443	.400	.343	.....	.251	.....	.182	.....
3/4"	.542	.488	.....	.....	.304	.....	.....	.....
7/8"	.640	.576	.....	.426	.....	.....	.....	.....
1"	*.739	.....	*.567 †	.....	.411	.....	.....	.....
1 1/8"	.838	.....	.....	.....	.....	.....	.....	.....
1 1/4"	*.937	.....	*.716	.....	.517	.....	.....	.....
1 1/2"	*1.14	.....	*.865 †	.....	.....	.....	.....	.....
1 3/4"	1.33	.....	.....	.....	.....	.....	.....	.....
2"	*1.53 †	.....	.....	.....	.....	.....	.....	.....
2 1/2"	1.93	.....	.....	.....	.....	.....	.....	.....
3"	2.32	.....	.....	.....	.....	.....	.....	.....

† Tinned I.D. and O.D.—one drawn after tinning—in 10 and 12 foot lengths.

ODD LENGTHS AND SIZES

A few sizes are carried in stock in odd lengths longer than 12 feet. Any sizes not stocked can be furnished from the mill in regular or special lengths upon receipt of specifications.

HARD DRAWN—ROUND—STUBS GAGE

In 20 Foot Exact Lengths

Outside Diameter in Inches	Thickness in Stubs Gage	Approx. Weight in Pounds Per Lineal Ft.	Outside Diameter in Inches	Thickness in Stubs Gage	Approx. Weight in Pounds Per Lineal Ft.
1 1/4"	No. 16	.937	3"	No. 15	2.565
1 1/2"	No. 16	1.135	4"	No. 14	3.955
2"	No. 16	1.530	5"	No. 14	4.965
2 1/2"	No. 15	2.127	6"	No. 14	5.974

Seamless
Tubes



I. D. SEAMLESS COPPER TUBING

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

HARD DRAWN—ROUND—STUBS GAGE In 20 Foot Exact Lengths

Inside Diameter in Inches	Thickness in Stubs Gage	Approx. Weight in Pounds Per Lineal Ft.	Inside Diameter in Inches	Thickness in Stubs Gage	Approx. Weight in Pounds Per Lineal Ft.
1¼"	No. 14	1.348	3"	No. 10	5.107
1½"	No. 10	2.667	3"	No. 12	4.119
1½"	No. 12	2.129	3"	No. 14	3.118
1½"	No. 14	1.598	3"	No. 16	2.423
1½"	No. 16	1.243	3½"	No. 8	7.352
2"	No. 8	4.342	3½"	No. 10	5.927
2"	No. 10	3.477	3½"	No. 12	4.789
2"	No. 11	3.09	3½"	No. 14	3.618
2"	No. 12	2.799	4"	No. 8	8.362
2"	No. 14	2.108	4"	No. 10	6.737
2"	No. 16	1.633	4"	No. 12	5.449
2½"	No. 8	5.352	4"	No. 14	4.128
2½"	No. 10	4.297	5"	No. 3	16.57
2½"	No. 12	3.459	5"	No. 7	11.338
2½"	No. 14	2.608	5"	No. 10	8.367
2½"	No. 16	2.033	6"	No. 8	12.372
3"	No. 7	6.968	6"	No. 10	9.997
3"	No. 8	6.352	8"	No. 10	13.257

COMMERCIAL BRONZE TUBING

HARD TEMPER In 15 Foot Lengths

ROUND

Outside Diameter in Inches	Thickness in B. & S. Gage	Approx. Weight in Lbs. Per Lineal Ft.
½"	No. 16	.341
5⁄8"	No. 16	.438
¾"	No. 16	.537
1"	No. 16	.732
1¼"	No. 14	1.166
1½"	No. 14	1.417
2"	No. 14	1.917
2½"	No. 14	2.416

SQUARE

Chase Commercial Bronze Square Tubing is carried in stock in the following sizes:

14 B. & S. Gage in 15 ft. Lengths

3⁄8"	1"
½"	1¼"
5⁄8"	1½"
¾"	2"

RECTANGULAR

Chase Commercial Bronze Rectangular Tubing is carried in stock in the following sizes in 15 foot lengths:

3⁄8" x 3⁄4"	No. 14 B. & S. Gage
½" x ¾"	No. 14 B. & S. Gage
5⁄8" x 1¼"	.064"
1" x 2"	No. 14 B. & S. Gage

Red Brass Tube is stocked in 15 foot lengths—1" O. D. x 16 B. & S.



CONDENSER AND HEAT EXCHANGER TUBES AND FERRULES

Chase makes a complete line of condenser and heat exchanger tubes. Each alloy has been made to handle a particular corrosion problem. Chase research engineers will be glad to recommend the alloy you should use.

* 30% Cupro-Nickel

70% Copper

30% Nickel

* 1", 1½" size, .040 wall
and 2", .065 wall in 10 and 12
foot lengths.

Aluminum Brass

76% Copper

22% Zinc

2% Aluminum

Ad-Aluminum

82% Copper

15% Zinc

2% Aluminum

1% Tin

20% Copper-Nickel- Zinc Alloy

75% Copper

20% Nickel

5% Zinc

Aluminum Bronze

95% Copper

5% Aluminum

Arsenical Copper

0.35% Arsenic

Balance Copper

Redalloy

85% Copper

14% Zinc

1% Tin

Admiralty†

70% Copper

29% Zinc

1% Tin

Red Brass

85% Copper

15% Zinc

444 Bronze

88% Copper

4% Zinc

4% Tin

4% Lead

70-30 Brass

70% Copper

30% Zinc

Arsenical Brass

67% Copper

33% Zinc

0.1% Arsenic

High Brass

67% Copper

33% Zinc

Muntz

60% Copper

40% Zinc

† Stock Sizes of Admiralty Condenser and Heat Exchanger Tubes

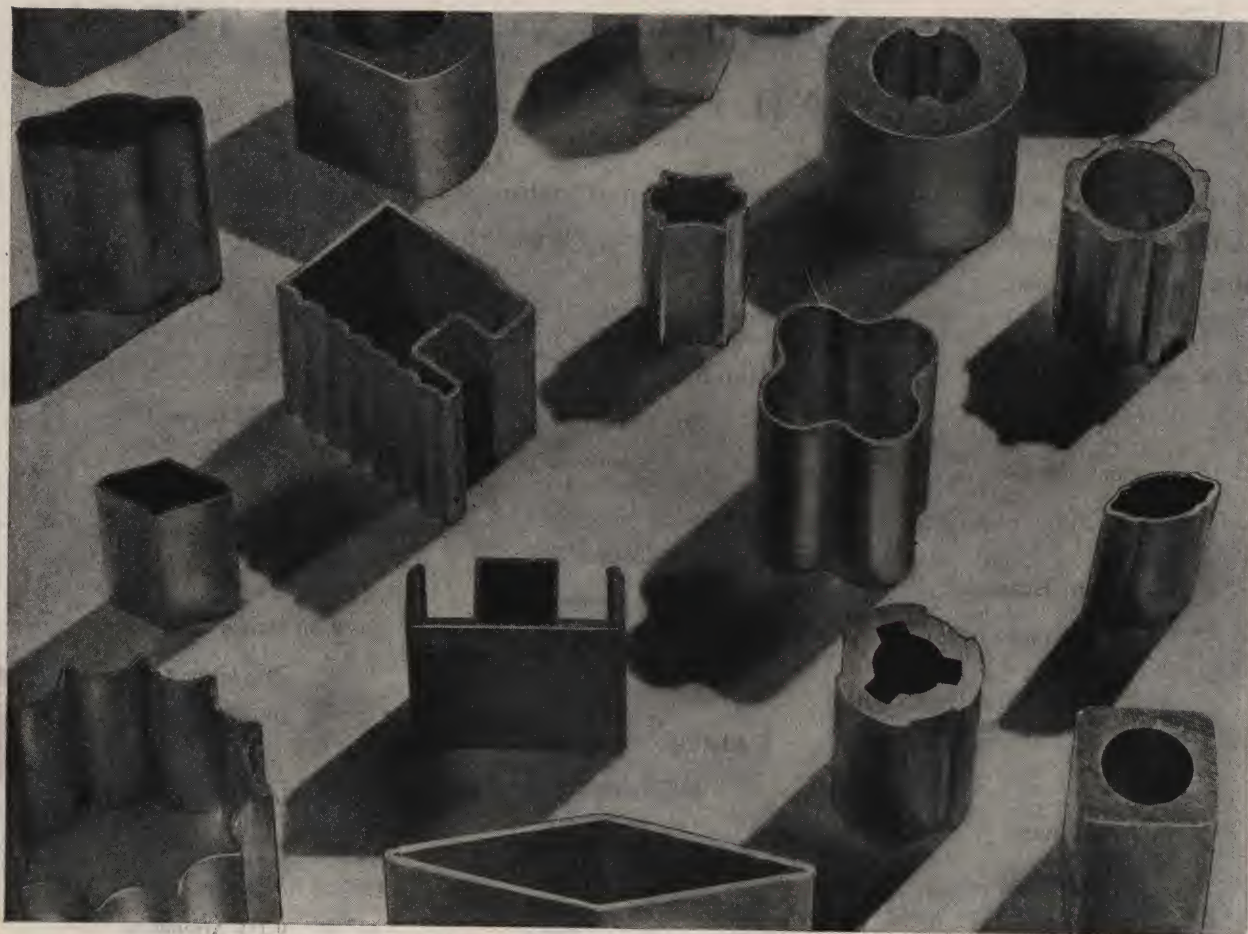
Admiralty Condenser Tubes are carried in stock in the following sizes: ⅝" O.D. x No. 16 Stubs Gage—¾" O.D. x No. 16 Stubs Gage.

Condenser Tube Ferrules

Chase Condenser Tube Ferrules to standard specifications in Admiralty and Brass, are carried in stock. Any special sizes can be furnished promptly upon receipt of specifications.

Standard tube ferrules fit ⅝" O.D. and ¾" outside diameter tubes and are ¾" and ⅞" long.

Seamless
Tubes



SPECIAL SHAPED SEAMLESS TUBING

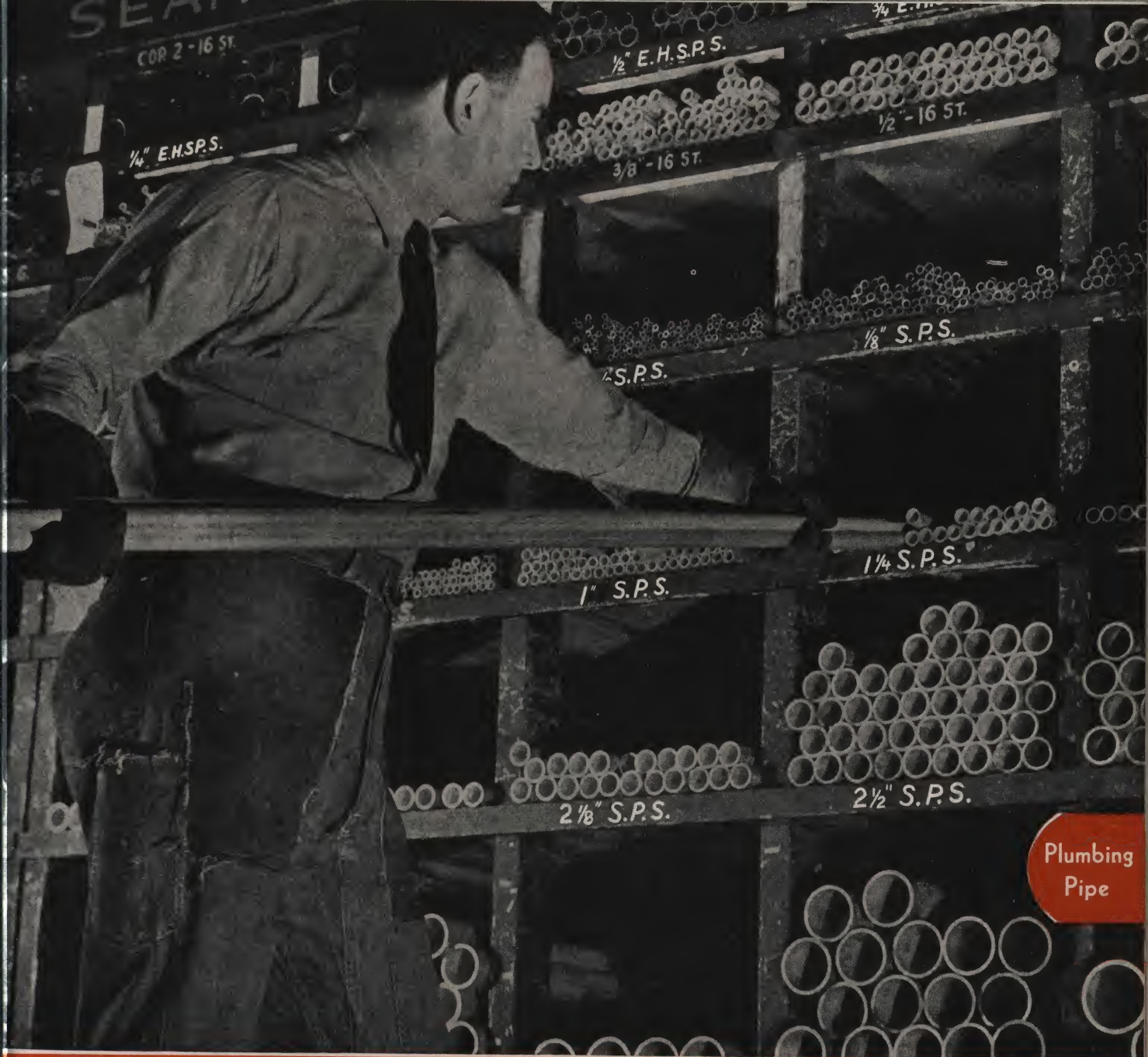
Chase Special Shaped Seamless Tubing can be furnished in Brass, Copper, and Bronze, and in a variety of tempers to meet specific requirements.

Special shaped tubing has a definite place in the mechanical, electrical and industrial fields as well as the architectural field. It is produced in light weight gages and very often used to replace a similar shape made of solid material.

In addition to the more or less standard reeded,

fluted and rope patterns, we have tools for producing a large variety of special shapes, some of which are illustrated on this page.

If you have a problem where special shape tubing can be used send us a drawing of what you have in mind, and we will let you know whether or not we have the necessary dies for producing it. If we don't have the dies we will quote you on new ones. (Die charges are rebated after certain quantities of the shape have been ordered.)



Plumbing
Pipe

CHASE BRASS AND COPPER PIPE

BRASS S.P.S.

RED BRASS S.P.S.

COPPER S.P.S.

COPPER WATER TUBE

REFRIGERATOR TUBE

AUTOMOTIVE TUBE





BRASS AND COPPER PIPE

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses

STANDARD PIPE SIZES

In 12 Foot Lengths

Approximate weights per lineal foot listed below indicates sizes carried in stocks.

S. P. S. Size	REGULAR			EXTRA HEAVY		
	Chase Brass Pipe	Chase Red Brass Pipe	Chase Copper Pipe	Chase Brass Pipe	Chase Red Brass Pipe	Chase Copper Pipe
1/8"	* .246	* .253	* .259	.353	.....	.371
1/4"	* .437	* .450	* .460	* .593	.....	.624
3/8"	* .612	* .630	* .643	* .805	.829	.847
1/2"	* .911	* .938	* .957	* 1.19	1.23	1.25
3/4"	* 1.24	* 1.27	* 1.30	* 1.62	1.67	1.71
1"	* 1.740	* 1.79	* 1.83	* 2.39	2.46	2.51
1 1/4"	* 2.56	* 2.63	* 2.69	* 3.30	3.39	3.46
1 1/2"	* 3.04	* 3.13	* 3.20	* 3.99	4.10	4.19
2"	* 4.02	* 4.14	* 4.23	* 5.51	.....	5.79
2 1/2"	* 5.830	* 6.00	6.14	* 8.41	.....	8.84
3"	* 8.31	* 8.56	8.75	* 11.24	.....	.....
3 1/2"	* 10.85	.....	11.41	13.67	.....	.....
4"	* 12.29	12.66	12.94	16.41	.....	.....
4 1/2"	13.74	.....	14.44	.....	.....	.....
5"	15.40	.....	16.21	.....	.....	.....
6"	18.44	18.99	19.41	.....	.....	32.93
7"	23.92	.....	.....	.....	.....	.....
8"	30.05	.....	.....	.....	.....	.....

Chase Red Brass Pipe

Chase Red Brass Pipe is particularly recommended where water conditions are corrosive. It is very desirable in hot water lines, especially in circulating systems as the corrosiveness of any water is increased by the increase in temperature. Chase Red Brass Pipe contains nominally 85% Copper, balance Zinc as specified in the U. S. Gov't Spec. WWP351 for Grade "A" pipe for plumbing. The Chase Trade Mark and the name of the alloy appears every 12" along each length of Chase Plumbing Pipe. It is fully guaranteed against mechanical and physical defects.

Chase Copper Pipe

Chase 99.9% Pure Copper Pipe is efficient in handling special types of corrosive water. The Chase Laboratory will gladly advise you where to use Chase standard pipe size copper pipe.

Chase Brass Pipe

Chase Brass Pipe contains more copper than ordinary brass pipe. It has a smooth close-grained surface that takes a better nickel plate, and has a beautiful natural finish. It is easier to cut and thread, and clean threads make tight, leak-proof connections.

* Nickel Plated*, Chromium Plated
or Tinned

Nickel Plated, Chromium Plated or Tinned Chase Brass Pipe is carried in stock in regular Standard Pipe Sizes as follows:

3/8" 3/4"
1/2" 1"



COPPER WATER TUBE

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

Chase flexible copper water tube, in Types K and L, is used for "in the wall" replacements and for adding new water lines in old buildings. Type L is used for general plumbing under normal water conditions while Type K should be used for plumbing purposes with severe water conditions. Chase flexible copper water tube is also used for underground water service lines and for oil burner lines. The use of the flared type of fitting is necessary for these types of work.

Chase rigid copper tube, Type L, is used with Chase Sweat Fittings. This tube is especially adapted for new installations or replacing exposed lines. Chase Rigid Copper Tube, Type L, is recommended for both water service and heating lines. Type "M" Tube is particularly adapted for all kinds of drainage waste and vent work. Type "O" tube is a light weight tube used mainly for industrial piping.

TYPE K—SOFT TEMPER

Straight Lengths

Coils

Nominal Size Inches	Outside Diameter Inches	Length in Feet	Nominal Size Inches	Outside Diameter Inches	Length in Feet
1/4"	.375	20	1/8"	.250	60
* 3/8"	.500	20	1/4"	.375	60
* 1/2"	.625	20	3/8"	.500	* 30 * 45 * 60
5/8"	.750	20	1/2"	.625	* 30 * 45 * 60
* 3/4"	.875	20	5/8"	.750	60
* 1"	1.125	20	3/4"	.875	* 30 * 45 * 60
* 1 1/4"	1.375	20	1"	1.125	* 30 * 45 * 60
* 1 1/2"	1.625	20	1 1/4"	1.375	30 45 * 60
* 2"	2.125	20	1 1/2"	1.625	* 60
2 1/2"	2.625	20	2"	2.125	45 * 60

Plumbing
Pipe

HARD TEMPER

Straight Lengths

Nominal Size Inches	Outside Diameter Inches	Length in Feet	Nominal Size Inches	Outside Diameter Inches	Length in Feet
1/8"	.250	20	* 1 1/4"	1.375	20
1/4"	.375	20	* 1 1/2"	1.625	20
* 3/8"	.500	20	* 2"	2.125	20
* 1/2"	.625	20	* 2 1/2"	2.625	20
5/8"	.750	20	3"	3.125	20
* 3/4"	.875	20	3 1/2"	3.625	20
* 1"	1.125	20	4"	4.125	20



COPPER WATER TUBE

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

TYPE L

Soft Temper—Straight Lengths

Nominal Size Inches	Outside Diameter Inches	Length in Feet
1/8"	.250	20
1/4"	.375	20
3/8"	.500	20
1/2"	.625	20
3/4"	.875	20
1"	1.125	20
1 1/4"	1.375	20
1 1/2"	1.675	20
2"	2.125	20

Coils

Nominal Size Inches	Outside Diameter Inches	Length in Feet
1/8"	.250	60
1/4"	.375	60
3/8"	.500	*20 *30 *45 *60
1/2"	.625	*20 *30 *45 *60
3/4"	.875	*20 *30 *45 *60
1"	1.125	*20 30 *45 *60
1 1/4"	1.375	* 60

Hard Temper—Straight Lengths

Nominal Size Inches	Outside Diameter Inches	Length in Feet
1/8"	.250	20
* 1/4"	.375	20
* 3/8"	.500	20
* 1/2"	.625	20
* 5/8"	.750	20
* 3/4"	.875	20
* 1"	1.125	20
* 1 1/4"	1.375	20
* 1 1/2"	1.625	20
* 2"	2.125	20
* 2 1/2"	2.625	20
* 3"	3.125	20
* 3 1/2"	3.625	20
* 4"	4.125	20
5"	5.125	20

TYPE M

Hard Temper—Straight Lengths

Nominal Size Inches	Outside Diameter Inches	Length in Feet
1/4"	.375	20
* 3/8"	.500	20
* 1/2"	.625	20
* 3/4"	.875	20
* 1"	1.125	20
* 1 1/4"	1.375	20
* 1 1/2"	1.625	20
* 2"	2.125	20
* 2 1/2"	2.625	20
* 3"	3.125	20
* 3 1/2"	3.625	20
* 4"	4.125	20

TYPE O

Hard Temper—Straight Lengths

Nominal Size Inches	Outside Diameter Inches	Length in Feet
* 3"	3.125	20
* 4"	4.125	20
* 5"	5.125	20
* 6"	6.125	20
* 8"	8.125	20

WEIGHTS

Weights for Types K, L and M Copper Water Tube are listed on page 123.

SPECIAL LENGTHS

Types K and L only

Sizes 3/8" to 1 1/4" inclusive. Soft temper in coils any length to 60 feet from Mill.

Sizes 1 1/2" and 2" inclusive. Soft temper in coils any length to 40 feet from Mill.

Types K, L and M

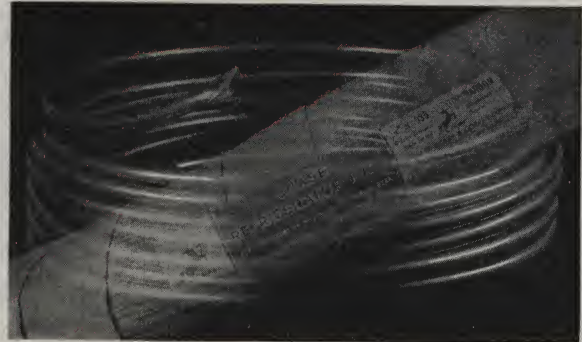
Sizes 1/8" to 8" inclusive. Hard temper, straight lengths, up to 20 feet from Mill.



SOFT SEAMLESS COPPER REFRIGERATOR TUBE

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

Chase copper refrigerator tube is made from pure refined copper. The soft temper and close, even grain structure is produced by automatically controlled heat treating. During this heat treating no air touches the tube, inside or out. This results in a bright, dry, oxide-free tube. The ends of the tube are sealed to prevent dirt, air or moisture from getting into the tube after it leaves the mill. All Chase Copper refrigerator tube is individually wrapped and labeled for easy handling. Standard length coils of 25 ft. and 50 ft. are carried in Chase warehouse stocks ready for quick delivery.



Tinned copper refrigerator tube can also be furnished promptly from warehouse stock. This type is found to be more suitable for conveying certain refrigerants. Inside, outside or both surfaces can be furnished tinned.

Plumbing
Pipe

IN COILS—PLAIN—ROUND—SEALED ENDS

Outside Diameter in Inches	Thickness Stubs Gage and Decimal Equivalent	Length of Coil in Feet
$\frac{3}{32}$ "	No. 21 (.032)	* 50
$\frac{1}{8}$ "	No. 20 (.035)	50 100
$\frac{3}{16}$ "	No. 21 (.032)	* 50
$\frac{3}{16}$ "	No. 20 (.035)	50 100
$\frac{1}{4}$ "	No. 22 (.028)	25
$\frac{1}{4}$ "	No. 21 (.032)	25 100
$\frac{1}{4}$ "	No. 20 (.035)	* 25 * 50 75 * 100
$\frac{5}{16}$ "	No. 20 (.035)	25 * 50 100
$\frac{3}{8}$ "	No. 21 (.032)	25
$\frac{3}{8}$ "	No. 20 (.035)	* 25 * 50 * 100
$\frac{7}{16}$ "	No. 20 (.035)	* 50
$\frac{1}{2}$ "	No. 21 (.032)	25
$\frac{1}{2}$ "	No. 20 (.035)	* 25 * 50 75 * 100
$\frac{5}{8}$ "	No. 20 (.035)	* 25 * 50 * 100
$\frac{3}{4}$ "	No. 20 (.035)	* 25 * 50
Straight Lengths—Round—Plain Ends		
$\frac{5}{8}$ "	No. 20 (.035)	20 ft. Straight Lengths
$\frac{3}{4}$ "	No. 20 (.035)	20 ft. Straight Lengths



SOFT SEAMLESS COPPER REFRIGERATOR TUBE

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

TINNED OUTSIDE—ROUND—IN COILS—SEALED ENDS

Outside Diameter in Inches	Thickness Stubs Gage and Decimal Equivalent	Length of Coil in Feet		
1/4"	No. 20 (.035)	* 25	* 50	* 100
3/8"	No. 20 (.035)	* 25	* 50	* 100
1/2"	No. 20 (.035)	* 25	* 50	* 100
5/8"	No. 20 (.035)	* 25	* 50	* 100
3/4"	No. 20 (.035)	* 25	* 50	
Tinned Outside—Round—Straight Lengths				
5/8"	No. 20 (.035)	20 ft. Straight Lengths		
3/4"	No. 20 (.035)	20 ft. Straight Lengths		
Hard Temper—Tinned Outside—Round—Straight Lengths				
5/8"	No. 20 (.035)	20 ft. Straight Lengths		
3/4"	No. 20 (.035)	20 ft. Straight Lengths		
Soft—Tinned Outside and Inside—Round—In Coils				
3/8"	No. 20 (.035)	50 ft. Coils		
1/2"	No. 20 (.035)	50 ft. Coils		

SOFT SEAMLESS COPPER AUTOMOTIVE TUBE

Chase Automotive Tubing is made from deoxidized copper, 99.9% pure. This tubing is drawn to size by improved machinery which insures accuracy of diameter and wall thickness and a smooth surface free from scratches or other blemishes. Every length of tubing is pressure tested and given a surface inspection. It then passes through a modern automatic annealing furnace to obtain just the right temper for bending.



STOCK SIZES

Plain—Round—In Cartons

Outside Diameter in Inches	Thickness in B. & S. Gage and Decimal Equivalent	Length of Coil in Feet
1/8"	No. 20 (.032)	* 25
3/16"	No. 20 (.032)	* 25
1/4"	No. 20 (.032)	* 25
5/16"	No. 20 (.032)	* 25
3/8"	No. 20 (.032)	* 25
7/16"	No. 20 (.032)	25
1/2"	No. 20 (.032)	* 25
5/8"	No. 20 (.032)	25

Soft Copper Automotive Tube in 12 to 14 foot straight lengths is carried in the following sizes—All No. 20 B. & S. (.032) Wall *3/16", *1/4", *5/16", *3/8", *1/2".



Pipe &
Tube
Fittings

CHASE COPPER TUBE FITTINGS

SWEAT FITTINGS

For hard temper Copper Water Tube

AUTOMOTIVE FITTINGS

Flared and Compression Types. For soft temper Copper Automotive Tube

FLARED FITTINGS

For soft temper Copper Water Tube

REFRIGERATION FITTINGS

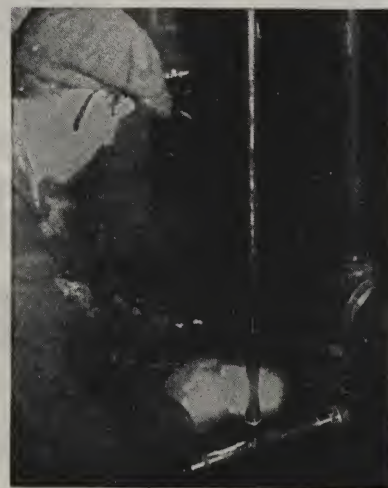
All Flared Type Fittings. For soft temper Copper Refrigeration Tube



COPPER TUBE SWEAT FITTINGS

WROUGHT AND CAST

Chase Sweat Fittings are used with rigid copper tube and are especially adapted for new house installations, and exposed lines of all kinds. The rigidity of the tube and the trimness of sweat fittings make a neat, good-looking job. Chase Sweat Fitting connections have been tested far beyond the strain of actual service and there is no question about the strength of the connection, fitting or tube. They are more than adequate for any plumbing use.





COPPER TUBE SWEAT FITTINGS



No. C 412
Tee



No. C 412D
Tee



No. 413
Tee



No. C 413
Tee



No. C 414
Tee



No. 416C
Cap



No. C 437
Wash Tray
Tee



No. C 435
Cross



No. 476
Stop and Waste



No. 429
Gate Valve



No. 417
Bushing
or Reducer

COPPER TUBE FLARED FITTINGS

FOR PLUMBING



Chase flared fittings are used with flexible copper water tube for "in-the-wall" replacements and for adding new water lines in old buildings. Chase Flexible one-half inch Copper Water Tube and Flared Fittings will withstand over 3,000 lbs. water pressure per sq. inch. (Average city water pressure is 30 to 120 lbs.) It takes a pull of nearly 3,000 lbs. to pull a half-inch tube and fittings apart. The joint will not loosen from vibration.

Pipe &
Tube
Fittings



No. 311
Tee



No. 312
Tee



No. 313
Tee



No. 314
Tee



No. 315
Tee



No. 307
90° Elbow



No. 308
90° Elbow



No. 309
90° Elbow



No. 307A
45° Elbow



No. 308A
45° Elbow



COPPER TUBE FLARED FITTINGS



No. 300
Sleeve Nut



No. 329
Tank Slip Fitting



No. 301
3 Part Union



No. 302
2 Part Union



No. 303
Female Adapter



No. 304
Male Adapter



No. 316C
Cap for Fitting



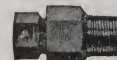
No. 300F
Female Tube
Nut Adapter



No. 300M
Male Tube
Nut Adapter



No. 323
Fitting Reducer



No. 319
Terminal
Fitting



No. 1028
Tank Valve



No. 316P
Plug for Tube



No. 321
Range Boiler
Fitting



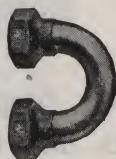
No. 317
Bushing



No. 1019
Copper Tube
Strap



No. 380
Slip Union Elbow



No. 338
Return Bend



No. 309A
45° Elbow



No. 1014A
Chase Flang-
ing Tool



No. 330
Bulkhead
Fitting



No. 337
Wash Tray Tee



No. 320
Range Boiler
Fitting



Nos. 1015-1016
Stop and Waste



No. 379
Gate Valve

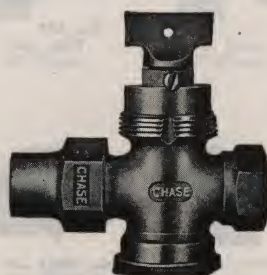


No. 325
Cross



Nos. 1017-1018
Stop and Waste

UNDERGROUND AND DRAINAGE FITTINGS



Both Chase Underground and Drainage Fittings are available from mill stock in a wide range of sizes. An illustrated price list of each type will be mailed upon request.





AUTOMOTIVE FITTINGS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

COMPRESSION TYPE

O. D. Tube Size	1/8"	3/16"	1/4"	5/16"	5/16"	3/8"	3/8"	1/2"
Pipe Thread Size	1/8"	1/8"	1/8"	1/8"	1/4"	1/8"	1/4"	3/8"
Union—Both Ends Tube	*†	*†	*†	*†		*†		*†
† Union—Spring Check Valve—Male One End	*†	*†	*†	*†		*†		
† Union—Female Pipe Thread One End	*†	*†	*†	*†	*†	*†	*†	*†
Elbow—Both Ends Tube	*†	*†	*†	*†		*†		
Elbow—Spring Check Valve—Male One End		*†	*†	*†		*†		
† Elbow—Male Pipe Thread One End	*†	*†	*†	*†	*†	†	*†	*†
Elbow—Female Pipe Thread One End	*†	*†	*†	*†	†	†	*†	*†
Tee—Tube All Ends	†	†	†	†		†		†
Tee—Male Pipe Thread on Run	*†	*†	*†	*†	†	†	*†	*†
Tee—Male Pipe Thread on Branch	*†	*†	*†	*†	†	†	*†	*†
Tee—Tube on Branch—Male and Female Ends	†	†	†	†	†	†	†	†
Nuts and Sleeves	*†	*†	*†	*†		*†		*†

† Without check valve. Standard and special sizes stocked.

FLARED TYPE (S. A. E.)

O. D. Tube Size	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
Pipe Thread Size	1/8"	1/8"	1/8"	1/8"	1/4"	3/8"
Union—Flared Both Ends		*†	*†	*†	*†	*†
† Union—Flared One End—Male Pipe Thread		*†	*†	*†	*†	*†
Union—Flared One End—Female Pipe Thread	†	*†	*†	*†	*†	*†
Elbow—Flared Both Ends	†	†	*†	*†	*†	*†
† Elbow—Flared One End—Male Pipe Thread		*†	*†	*†	*†	*†
Tee—Flared All Ends		*†	*†	*†	*†	*†
Tee—Male Pipe Thread on Run—Other Ends Flared		*†	*†	*†	*†	*†
Tee—Male Pipe Thread on Branch—Other Ends Flared		*†	*†	*†	*†	*†
Tee—Female Pipe Thread on Run—Other Ends Flared			*†	*†	*†	*†
Flared Union with Spring Check Valve			*†	*†	*†	*†
S. A. E. Long Nuts	†	*†	*†	*†	*†	*†
S. A. E. Short Nuts	†	†	†	†	†	†

Pipe &
Tube
Fittings

† Special Sizes Available in Compression Type Fittings are as follows: 3/16" x 1/4", 1/4" x 1/4", 3/8" x 3/8" and 1/2" x 1/2". These sizes are stocked only for the following fittings: Union—Female Pipe Thread One End; Elbow—Male Pipe Thread One End; Elbow—Female Pipe One End.

† Special Sizes Available in Flared Type (S. A. E.) Fittings are as follows: 1/4" x 1/4", 5/16" x 1/4", 3/8" x 3/8" and 1/2" x 1/2". These sizes are stocked only for the following fittings: Union—Flared One End, Other End Male Pipe Thread; Union—Flared One End, Other End Female Pipe Thread; Elbow—Flared One End, Other End Male Pipe Thread.



REFRIGERATION FITTINGS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

COPPER TO COPPER FITTINGS

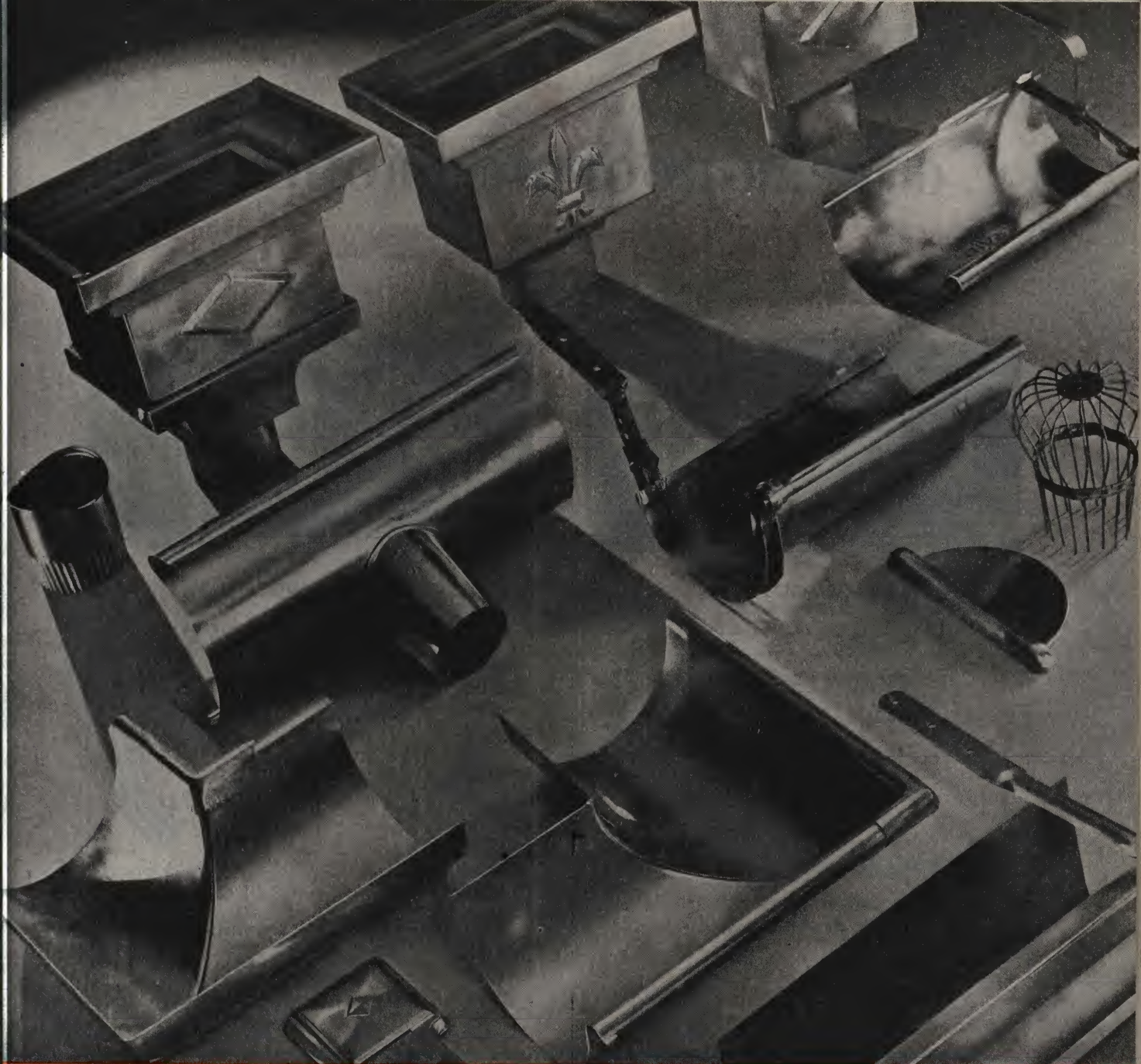
O. D. Tube Size	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"
Long Rod Nut.....	†	†	†	†	†	†	†		
Short Rod Nut.....	†	†	†	†	†		†		
Long Forged Nut.....			*†	*†	*†	*†	*†	*†	*†
Short Forged Nut.....			*†		*†		*†	*†	
Frostproof Nut.....			†	†	*†		*†	*†	
Union.....			*†	†	*†	*†	*†	*†	
Elbow.....			*†	*†	*†		*†	*†	
Tee.....			*†		*†		*†	*†	
Cross.....			*†		*†		*†	*†	
Multiple Valve Connector.....			*†		*†		*†	*†	
Tube Sealing Plug.....			*†		*†		*†	*†	
Tube Sealing Cap.....		†	*†	†	*†		*†	*†	
Tube Seal Bonnet.....			†		†		†	†	
Flare Gasket.....		†	†	†	*†		*†	*†	*†

COPPER TO COPPER REDUCING FITTINGS

O. D. Tube Size	1/4"	1/4"	5/16"	3/8"	3/8"	3/8"	7/16"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"	3/4"	3/4"
O. D. Tube Size	3/8"	1/2"	1/4"	1/4"	5/16"	1/2"	3/8"	1/4"	3/8"	5/8"	3/8"	1/2"	3/4"	1/2"	5/8"
Reducing Nut.....				*†	*†				*†			*†			
Reducing Union.....				*†				*†	*†			*†			
Reducing Elbow.....				*†				*†	*†			*†			
Tee—Reduction on Run.....				*†		†		*†	*†			*†			
Tee—Reduction on Branch.....				*†				*†	*†	*†		*†			
Flared Fitting Reducer.....	†			*†				*†	*†	†		*†			

COPPER TO S. P. S. THREAD FITTINGS

O. D. Tube Size	3/16"	1/4"	1/4"	1/4"	5/16"	5/16"	5/16"	3/8"	3/8"
Pipe Thread Size	1/8"	1/8"	1/4"	3/8"	1/8"	1/4"	3/8"	1/8"	1/4"
Union—Male Pipe Thread One End.....		*†	*†	†	†	†			*†
Coupling—Female Pipe Thread One End.....		*†	†						*†
Elbow—Male Pipe Thread One End.....		*†	*†		*†	*†			*†
Elbow—Female Pipe Thread One End.....		*†							*†
Tee—Male Pipe Thread on Branch.....		*†							*†
Tee—Male Pipe Thread on Run.....		*†							*†
O. D. Tube Size	3/8"	3/8"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"
Pipe Thread Size	3/8"	1/2"	1/4"	3/8"	1/2"	1/4"	3/8"	1/2"	3/4"
Union—Male Pipe Thread One End.....	*†	*†	*†	*†	*†	*†	*†	*†	†
Coupling—Female Pipe Thread One End.....				*†				*†	
Elbow—Male Pipe Thread One End.....	*†	*†		*†	†			*†	
Elbow—Female Pipe Thread One End.....				*†				*†	
Tee—Male Pipe Thread on Branch.....				*†				*†	
Tee—Male Pipe Thread on Run.....				*†				*†	



Roofing
Products

CHASE COPPER ROOFING PRODUCTS

LEADERS and GUTTERS

ELBOWS and SHOES

MITERS and END CAPS

STRAPS and HANGERS

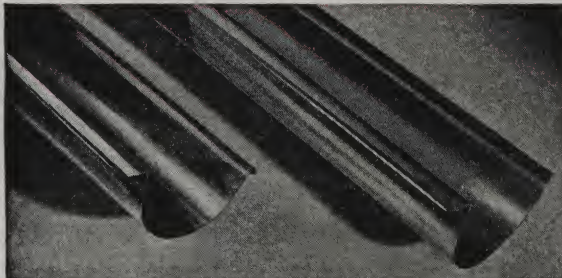
THRU-WALL FLASHING

NAILS and TACKS



COPPER ROOFING PRODUCTS

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses



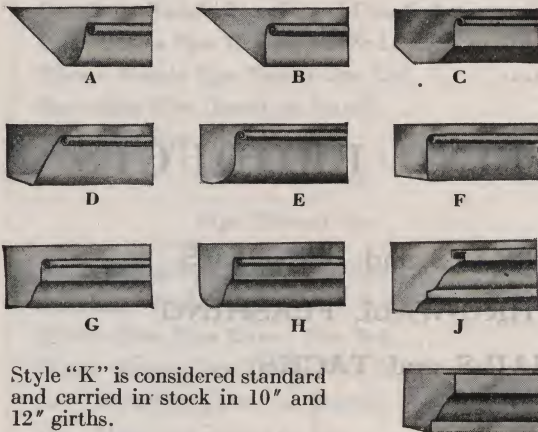
COPPER GUTTERS

Lengths of 10 Feet

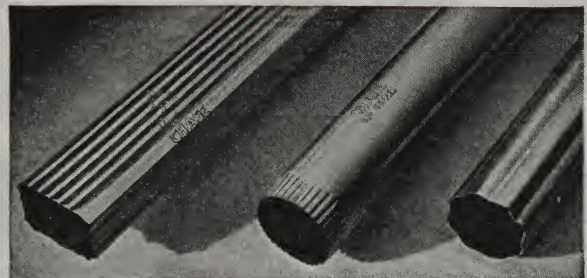
Single Bead—Lap Joint			
4"	14 oz.	* 5"	16 oz.
* 4"	16 oz.	* 6"	16 oz.
Single Bead—Slip Joint			
4"	16 oz.	6"	16 oz.
5"	16 oz.		
Double Bead—Lap Joint			
4"	16 oz.	6"	16 oz.
5"	16 oz.		

O. G. COPPER GUTTERS

Lengths of 10 Feet



Style "K" is considered standard and carried in stock in 10" and 12" girths.



COPPER DOWNSPOUTS

16 Ounce—10 Foot Lengths

Plain Round	Round Corrugated	Square Corrugated
* 2"	* 2"	* 2"
* 3"	* 3"	* 3"
* 4"	* 4"	* 4"
5"	* 5"	* 5"
* 6"	* 6"	



Copper
Downspout Heads

Pattern	No.	Outlet	Face	Depth	Hgt.
Large Diamond	1A	* 2" x 3"	10	6	9
Large Diamond	1B	3" x 4"	11	6½	9
Small Diamond	2A	2" x 3"	9	5½	7½
Small Diamond	2B	3" x 4"	10	6	7½

No. 1A is also stocked in 3" round outlet.
No. 1B is also stocked in 4" round outlet.



Downspout Strainers

Round		Square	
No. 14	3" and 4"	No. 14	* 4 x 5
No. 15	* 5" and * 6"	No. 16	2 x 3 3 x 4
No. 16	2" and * 4"	No. 16	4 x 4 4 x 5 3 x 4
No. 17	* 2" and * 3"	No. 17	* 2 x 2 * 2 x 3 * 3 x 4



COPPER ROOFING PRODUCTS

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses.

COPPER DOWNSPOUT ELBOWS

Plain Round—16 Oz.

	No. 1 45°	No. 2 60°	No. 3 75°	No. 4 90°
	* 2"	2"	* 2"	2"
	* 3"	3"	* 3"	3"
	* 4"	4"	* 4"	..
	5"	5"	5"	..

Round Corrugated—16 Oz.

	No. 1 45°	No. 2 60°	No. 3 75°	No. 4 90°
	* 2"	* 2"	* 2"	..
	* 3"	* 3"	* 3"	3"
	* 4"	* 4"	* 4"	..
	* 5"	* 5"	* 5"	..
	* 6"	* 6"	* 6"	..

Square Corrugated—16 Oz.

Style "A"

	No. 1 45°	No. 2 60°	No. 3 75°
	* 2"	* 2"	* 2"
	* 3"	* 3"	* 3"
	* 4"	* 4"	* 4"
	* 5"	* 5"	* 5"

Style "B"

	No. 1 45°	No. 2 60°	No. 3 75°
	* 2"	* 2"	* 2"
	* 3"	* 3"	* 3"
	* 4"	* 4"	* 4"
	5"	5"	5"

COPPER DOWNSPOUT SHOES

16 Oz.

Plain Round No. 3	Round Corrugated		Square Corrugated No. 3
	No. 2	No. 3	
2"	2"	2"	2"
3"	3"	3"	3"
4"	4"	4"	4"
..	..	..	5"

DOWNSPOUT STRAPS

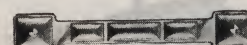
Rival One Piece Strap



Style "A"

* 3"

* 4"



Style "B"

* 3"

* 4"

For Round or Square Downspouts

2" 3" and 4"

Plain



Fitrite Jr.

* 2"

* 3"

* 4"



Style "L"

2

3 Piece

Ornamental Adjustable Strap

For Use With Leader Hooks

3"

4"

16 oz.

Cast Bronze Sickie Hooks—Brick Drive

Plain Round

Round Corrugated

3"

4"

3"

4"

Cast Bronze Wired Square Hooks

Brick Drive

3"

4"

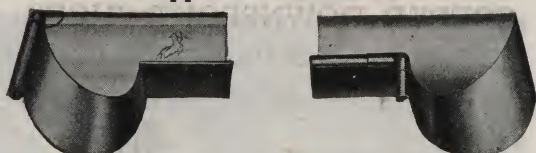
Roofing
Products



COPPER ROOFING PRODUCTS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

Copper Gutter Miters



* Outside Corner

* Inside Corner

Single Bead—Lap Joint

*4" *5" *6"

Copper Gutter Hangers



Monarch Shank Circle and
 Plate Hangers

For 4", 5" and 6" Gutters

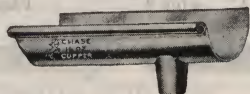
* * *



Copper Strap Hangers

For 4", 5" and 6" Gutters

Copper Gutter End Piece With Outlet Only



16 Oz. for 4" and 5" Half Round Gutters
 For *3" and *4" Downspouts



Copper End Caps



Lap Joint—Single Bead 4" 5" 6"

Slip Joint—for *4", *5", *6" Gutters



Copper Gutter Outlets

*2" *3" *4"

Slip Joint Copper Connections

For Half Round Gutters 4" 5" 6"

O. G. Copper Gutter Miters

Inside and Outside Corners

For 12" Girth

O. G. Copper Gutter Hangers

For 10" Girth

For 12" Girth

Outlet Tubes

For O. G. Copper Gutters

2" x 3" Leader

3" x 4" Leader

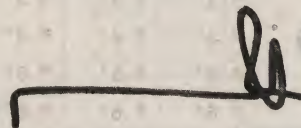
End Caps

For O. G. Copper Gutters

For 12" Girth—Right Hand

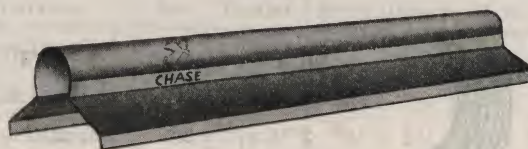
For 12" Girth—Left Hand

Classon Snow Guards



For New Roofs

Copper Ridge Roll

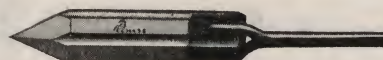


16 Oz.—In 10 Ft. Lengths

2½" Roll—10" Apron

2" Roll—10" Apron

Soldering Coppers



Pointed Pattern—Hooked Handles are carried in
 stock in the following weights:

¼ lb. * 1 lb. * 2½ lbs. 5 lbs.

⅜ lb. * 1¼ lbs. * 3 lbs. 6 lbs.

½ lb. * 1½ lbs. * 3½ lbs. 10 lbs.

¾ lb. * 2 lbs. * 4 lbs. ..



COPPER ROOFING PRODUCTS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

THRU-WALL COPPER FLASHING

Chase Threplex Thru-Wall Flashing is a flashing installed entirely through masonry walls. It is made of 16 ounce copper with embossed ridges, which are designed to direct the flow of water to the face of

the wall. This prevents leaks, plaster stains, peeling paint, efflorescence and expensive rebuilding of parapet walls due to breaking down of mortar joints.



Bonds in
Every Direction



Bonds in All
Lateral Directions

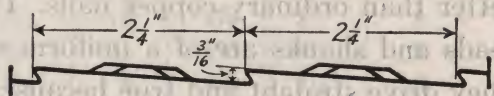
WAREHOUSE STOCK SIZES

Width.....	12"	14"	15"	16"	18"
Duplex.....	*†	*†	*†	*†	*†
Threplex.....	*†	*†		*†	†

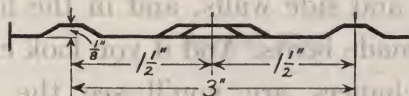
Chase Threplex Thru-Wall Flashing will meet specifications calling for flashings that will bond in all directions in the mortar bed. It resists all lateral and vertical movement. Chase Threplex flashing consists of a series of "Z" bends which provide perfect drainage, as each "Z" bend forms a weep hole. It also provides for adequate expansion and contraction at each "Z" bend.

When installed, the general design of the Chase Duplex Thru-Wall Flashing provides a bond in all lateral direc-

tions. The raised ridges, to prevent right or left movement, are 3 inches apart and run the full width of the sheet. The row of embossings to prevent forward or backward movement are 4 inches apart. The ridges running the full width of the sheet provide a second advantage, for when a counter flashing is formed, the face, due to the ridges, offers a much greater resistance to being blown up by the wind than plain copper. The pattern or design of Chase Duplex Flashing is formed to prevent the thinning or hardening of the metal at the ridges.



Half Size Detail of Chase Threplex Flashing



Half Size Detail of Chase Duplex Flashing

Roofing
Products



CHASE COPPER NAILS



Long-lived nails make long-lived jobs. That's why you see copper nails on good roofs and side walls, and in the hulls of well-made boats. And if you look closely, the chances are you'll see the Chase trade-mark on the head of each nail. Just

as any copper nails are better than nails that rust, so Chase Copper Nails are better than ordinary copper nails. Their heads and shanks are of a uniform size. They drive straight and true because the head is well centered.



CHASE COPPER NAILS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

REGULAR WIRE NAILS

Standard Sizes

	Length	Stubs Gage	Approximate Number to the Lb.
	5/8"	16	1380
	3/4"	16	1160
	3/4"	15	956
	7/8"	15	808
*	1"	15	704
*	1 1/4"	14	424
*	1 1/2"	12	208
*	1 1/2"	14	278
*	1 3/4"	12	180
	1 3/4"	11	144
	2"	12	178
	2"	11	130
*	2"	10	106
*	2 1/2"	10	86
*	3"	9	56
*	3 1/2"	8	40
*	4"	6	23
*	4 1/2"	5	18
*	5"	4	14
*	6"	2	8

Special Sizes

Length	Stubs Gage	No. to the Lb.	Length	Stubs Gage	No. to the Lb.
3/4"	14	768	2"	9	106
7/8"	16	1093	2"	8	71
*	7/8"	14	2 1/4"	11	131
	1 1/8"	12	2 1/4"	9	77
*	1 1/4"	15	2 1/2"	11	108
*	1 1/4"	12	2 1/2"	10	100
	1 1/4"	11	2 1/2"	8	58
	1 1/4"	10	2 3/4"	10	73
*	1 1/2"	13	3"	8	38
	1 1/2"	11	4"	8	22
	1 1/2"	8	4 1/2"	6	9
*	2"	12	....	....	....

WIRE SLATING NAILS

Standard Sizes

Length	Stubs Gage	Ap-prox. No. to the Lb.	Length	Stubs Gage	Ap-prox. No. to the Lb.
*1"	12	292	*1 1/2"	11	164
*1 1/4"	10	164	*1 1/2"	12	204
*1 1/4"	11	208	*1 3/4"	10	116
*1 1/4"	12	240	*2"	10	108
*1 1/2"	10	132	....	..	...
Special Sizes					
* 7/8"	12	332	*2 1/2"	12	124
*1 3/4"	12	176	*2 1/2"	11	102
1 3/4"	11	147	*2 1/2"	10	94
*2"	12	158	3"	14	207
*2"	11	121	3"	10	74
2"	8	96	....	..	...

CUT COPPER CLOUT NAILS

Standard Sizes

	Length	Dwt.	Approximate Number to the Lb.
*	5/8"	....	1112
*	3/4"	....	928
*	7/8"	....	644
*	1"	2d	512
	1 1/8"	....	456
*	1 1/4"	3d	338
*	1 1/2"	4d	220
	1 3/4"	5d	175
*	2"	6d	125
Special Sizes			
*	3/8"	....	2910
*	1/2"	....	1636


Roofing
Products




CHASE COPPER NAILS AND TACKS

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses

REGULAR CUT NAILS

	Standard Sizes		
	Length	Dwt.	Approximate Number to the Lb.
	3/4"	....	928
	1"	2d	512
	1 1/4"	3d	240
	1 1/2"	4d	176
	1 3/4"	5d	128
	2"	6d	96
	2 1/4"	7d	82
	2 1/2"	8d	58
	2 3/4"	9d	49
	3"	10d	38
	3 1/2"	16d	32
	4"	20d	24
	4 1/2"	30d	17
	5"	40d	16

Cut Sheathing Nails

	Copper and Yellow Metal Standard Sizes		
	Length	Dwt.	Approximate Number to the Lb.
	1"	2d	208
	1 1/8"	2d	181
	1 1/4"	3d	152

Asbestos Siding Nails



Brass—Cadmium Plated

Width	1 1/4"	1 3/4"	2"	2 1/2"
Annular Threaded	* †	* †	* †	* †
Barbed	* †	* †	* †	

Copper Wire Roofing Nails


Barbed.....1" Long; No. 13 Stubs Gage
Regular—Barbed Full Length. 1 1/2" Long; No. 14 Stubs Gage

COPPER AND BRONZE TACKS

	Oval and Flat Heads Standard Sizes		
	Ounce	Length	Approximate Number to the Lb.
	2	1/4"	5200
	* 3 †	3/8"	2900
	4	1/6"	2075
	* 6 †	1/2"	1650
	8	9/16"	1280
	* 10 †	5/8"	1000
	* 14 †	3/4"	760
	* 18 †	7/8"	570
	* 22 †	1"	420
	* 26	1 1/4"	280
	30	1 1/2"	240

† Flat head.

Copper Storm Nails

	* Octagon Heads For Asbestos Shingles
	* 3/4" Length—No. 14 Gage Shanks
	1 1/8" Length—No. 14 Gage Shanks

Cut Slating and Shingle Nails

1 1/4" Long 3d 148 to the Pound

Weatherstrip Nails

Brass..... 3/4".....17 Gage
Bronze..... 3/4".....17 Gage

Wire Boat Nails

Copper..... 1/4".....12 Gage
Copper..... 4"..... 4 Gage
Brass..... 2 1/2".....10 Gage

Oval Head Copper Gutter Spikes

Side Wall Shingle Nail
1/4" Dia. 6" Long 3/16" Dia. 7" Long
1/4" Dia. 7" Long No. 5 Gage 8" Long





INSECT SCREEN CLOTH

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

† Meshes Listed Below Indicate Regular Stock Widths

Description Diameter of Wire	Bright Bronze			Antique Bronze			Pure Copper		
	.0113"			.0113"		.015"	.0113"		
17" wide	..	16	..	..	*16	..	..	..	..
18" wide	14	*16	*18	14	*16	18	..	14	16
19" wide	..	16	..	..	*16	..	..	..	..
20" wide	14	*16	*18	14	*16	18	..	14	16
21" wide	14	*16	..	..	16	..	..	..	..
22" wide	14	*16	*18	14	*16	18	..	14	16
23" wide	..	*16	..	..	16	..	..	..	..
24" wide	14	*16	*18	14	*16	18	16	14	16
25" wide	14	*16	..	..	16	..	..	..	..
26" wide	14	*16	*18	14	*16	18	16	14	16
27" wide	..	*16	..	..	16	..	..	..	..
28" wide	14	*16	*18	14	*16	18	16	14	16
29" wide	..	*16	18	..	16	..	..	..	..
30" wide	14	*16	*18	14	*16	18	16	14	16
31" wide	..	*16	18	..	16	..	..	..	..
32" wide	14	*16	*18	14	*16	18	16	14	16
33" wide	..	*16	..	..	16	..	..	..	..
34" wide	14	*16	*18	14	*16	18	16	14	16
35" wide	..	*16	..	..	*16	..	..	..	..
36" wide	14	*16	*18	14	*16	18	16	14	16
37" wide	..	16	..	..	*16	..	..	..	..
38" wide	14	*16	18	14	*16	18	16	14	16
39" wide	..	16	..	..	*16	..	..	..	..
40" wide	14	*16	*18	14	*16	18	16	14	16
41" wide	..	*..	..	..	*16	..	..	..	..
42" wide	14	*16	*18	14	*16	18	16	14	16
43" wide	..	..	..	..	16	..	..	..	..
44" wide	14	*16	18	14	*16	18	16	14	16
45" wide	..	..	..	..	16	..	..	..	..
46" wide	14	*16	18	14	*16	18	16	14	16
47" wide	..	..	..	..	16	..	..	..	..
48" wide	14	*16	18	14	*16	18	16	14	16
54" wide	..	16	18	..	16	18	..	..	..
60" wide	..	16	..	..	16	..	..	..	..
66" wide	..	..	..	..	16	..	..	..	..
72" wide	..	..	..	..	16	..	..	..	..

Screen and Wire Cloth cut to narrow widths can be furnished promptly.

† Milwaukee stocks 50 and 100 lb. rolls.

Miscel.
Products



***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

**GALVANIZED
 SCREEN CLOTH**
 In 100 Foot Rolls

14 Mesh	16 Mesh	14 Mesh	16 Mesh
18"	*18"	34"	*34"
20"	*20"	36"	*36"
22"	*22"	38"	*38"
24"	*24"	40"	*40"
26"	*26"	42"	*42"
28"	*28"	44"	*44"
30"	*30"	46"	*46"
32"	*32"	48"	*48"

**BRASS
 STRAINER CLOTH**

Brass Strainer Cloth is carried in stock in the following sizes. It is also available in these sizes in cut pieces.

Rolls 12" Wide 5 Feet Long		Rolls 36" Wide 100 Feet Long
Mesh	Mesh	Mesh
*40	*80	40
*50	90	50
*60	100	60
*70		

Also odd widths from 17" to 45" inclusive.

WIRE CLOTH
STOCK WIDTHS
 Rolls of 100 Lineal Feet

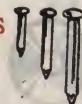
Mesh	Dec. Size Wire	Brass Widths			Copper Widths			Antique Bronze Widths		
2	.063"	.....	.....	36"	24"	30"	*36"	.....	.....	.....
3	.040"	.....	.....	.....	.....	.....	.....	.....	30"	*36"
3	.047"	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	.047"	.....	.....	36"	24"	30"	*36"	.....	.....	.....
6	.035"	.....	.....	36"	.....	.....	.....	.....	.....	.....
8	.029"	.....	.....	*36"	.....	.....	36"	.....	.....	.....
10	.027"	.....	.....	36"	.....	.....	.....	.....	.....	.....
12	.025"	24"	.....	*36"	.....	.....	36"	.....	.....	.....
14	.023"	.....	.....	36"	.....	.....	.....	.....	.....	.....
16	.0205"	.....	.....	36"	.....	.....	36"	.....	.....	.....
18	.019"	.....	.....	36"	.....	.....	36"	.....	.....	.....
20	.0165"	.....	30"	*36"	.....	.....	36"	24"	30"	36"
24	.0137"	.....	30"	*36"	.....	.....	36"	24"	30"	36"
30	.012"	.....	.....	*36"	.....	30"	36"	42"	.....	.....
40	.010"	.....	.....	*36"	.....	.....	36"	.....	.....	.....
50	.009"	.....	.....	36"	.....	30"	36"	.....	.....	.....
60	.0075"	.....	.....	36"	.....	.....	36"	.....	.....	.....
70	.007"	.....	.....	36"	.....	.....	.....	.....	.....	.....
80	.0057"	.....	.....	36"	.....	.....	.....	.....	.....	.....
90	.005"	.....	.....	36"	.....	.....	.....	.....	.....	.....
100	.0045"	.....	.....	36"	.....	.....	.....	.....	.....	.....



BRASS ESCUTCHEON PINS



***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses



Round Heads—Packed in 1 Lb. Boxes

Stubs Gage	Count Per Lb. Indicates Regular Stock Sizes										
	3/16"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	2"
No. 10	424	....	296	256	....	196	210	....	....
No. 11	568	....	360	312	290	260	....	....	....
No. 12	720	650	460	416	400	336	272	212	170
No. 13	1120	948	672	528	480	400	380	320	....
No. 14	*1875	*1312	*1100	*950	*830	*692	*600	*432	*378	*272
No. 15	2440	1820	....	1152	960	888	720	576	580	....
No. 16	3500	*3100	*2240	*1720	*1460	*1275	*1130	*980	*720	*592	....
No. 17	3540	2700	2076	1812	1500	1185	1051	928	....	....
No. 18	*4972	*3175	*2550	2450	2200	1740	*1520	....	....	....
No. 19	7303	5140	....	....	....	....	....	....	....	....
No. 20	9932	8419	6374	....	....	3500	....	....	....	....



COPPER BELT RIVETS

Packed in 1 Lb. Boxes

RIVETS ONLY

RIVETS AND BURS



Rivet Gage	Length in Inches												
	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 3/4	2	
No. 5				†	†	†	†		†	†	†	†	
No. 6			†	†	†	†	†		†	†			
No. 7		†	*†	*†	*†	†	*†	†	†	†	†	†	
No. 8	*†	†	†	†	†	†	†	†	†	†	†	†	
No. 9		†	†	†	*†	†	†	*†	†	†			
No. 10	†	†	*†	*†	*†	†	*†	†	†	†			
No. 11					†								
No. 12	†	†	†	†	†	†	†						
No. 13	†	†	†	†									
No. 14	†	†	†		†								
No. 15	†		*†										

Rivet Gage	Length in Inches																
	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 3/4	2	3			
No. 5			†	*†	*†	*†	*†	*†		*†	*†		†				
No. 6				*†	*†	*†	*†	*†		*†	*†						
No. 7			†	*†	*†	*†	*†	*†	*†	*†	*†	*†	*†	*†	†		
No. 8	*†		*†	*†	*†	*†	*†	*†	*†	*†	*†	*†	†	†			
No. 9	†		*†	*†	*†	*†	*†	*†	*†	*†	*†	*†					
No. 10	†		*†	*†	*†	*†	*†	*†		†	*†		†				
No. 11	†		†			†	†										
No. 12	*†		*†	*†	*†	*†	*†	*†		†							
No. 13	†	†	†	†		†											
No. 14	†		†	†	†	†											
No. 15			†	†													

ASSORTED BELT RIVETS AND BURS

†Indicates regular stock sizes.

1/4 Lb. Boxes	1/2 Lb. Boxes
No. 8 Ga. 3/8" to 3/4"	No. 8 Ga. 3/8" to 3/4"
No. 8 Ga. 1/2" to 7/8"	No. 8 Ga. 1/2" to 7/8"
No. 9 Ga. 3/8" to 3/4"	* No. 9 Ga. 3/8" to 3/4" †
	* No. 9 Ga. 1/2" to 1" †
	No. 10 Ga. 3/8" to 1"

† 5 lb. boxes.

FLAT HEAD COPPER RIVETS

* 3/8" No. 9

* 1/2" No. 9

Packed in 1 Lb. Packages

Miscel.
Products



***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses



COPPER BURS



Count to the Lb. Indicates Regular Stock Sizes

Packed in 1 Lb. Boxes

Gage Number	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Number to Pound	*64	*76	*89	*184	*358	*465	*571	*750	*908	*1243	*1450	*2071	*3270	*4160

FLAT HEAD COPPER AND BRASS TINNERS' RIVETS

Size Denotes Lbs. per 1000 Pieces—Packed in Boxes of 1000



COPPER

BRASS

Size	* $\frac{1}{2}$	* $\frac{3}{4}$	*1	* $1\frac{1}{4}$	* $1\frac{1}{2}$	* $1\frac{3}{4}$	*2	* $2\frac{1}{2}$	*3	*4	*5	*6
------	-----------------	-----------------	----	------------------	------------------	------------------	----	------------------	----	----	----	----

Size	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
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OVAL HEAD COPPER TRUNK RIVETS

Carried in Stock without Burs—Packed in 1 Lb. Boxes

Length Measured Under the Head

Count to the Lb. Indicates Regular Stock Sizes



No.	Length								
	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"	$1\frac{1}{4}$ "
9	317	270	254	206	189	165	138	116	101
12	496	390	332	278	247	216	.....	182	.....

COPPER BRAKE BAND RIVETS

Count to the Lb. Indicates Regular Stock Sizes

Packed in 1 Lb. Boxes

Length Measured Over-all



Diameter	Length							
	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "
No. 5	...	...	115	97	85	75	55	...
No. 6	...	*155	*128	*109	*96	*86	...	...
No. 7	255	*199	*158	*138	*123	*108	74	36
No. 8	*284	*226	*193	*161	*141	*131	...	...
No. 9	339	*229	*245	*218	*184	*165	...	...
No. 10	*470	*363	*308	*264	*237	*200	...	...
No. 12	*715	*566	*468	*390	*342	*300	...	...



***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses



ROUND HEAD BRASS RIVETS

Count to the Lb. indicates Regular Stock Sizes
 Stocked in Bulk and in 1 and 5 Lb. Boxes



Dia. of Shank	Length												
	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	9/16"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"
1/16"	4720	3712	3000	2379	.....	.....	.....	.....	.....	.....	.....	.....	.....
1/8"	928	* 742	* 644	* 446	* 480	* 414	.....	* 352	* 300	.....	* 223	.....	.....
3/16"	.....	.....	* 206	.....	* 171	* 141	* 135	* 127	* 118	* 102	* 85	77	.....
1/4"	.....	.....	.....	.....	* 77	* 71	.....	* 65	* 60	* 53	* 47	39	* 34



ROUND HEAD COPPER RIVETS

Count to the Lb. indicates Regular Stock Sizes
 Stocked in Bulk and in 1 and 5 lb. Boxes



Dia. of Shank	Length																	
	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"	3"
1/8"	* 736	* 572	* 495	* 468	* 334	* 392	* 306	* 270	* 245	* 220	* 150	* 91	* 89	...	...	...	...	...
3/16"	...	* 204	* 174	* 166	...	* 138	* 124	* 110	* 97	* 90	* 85	* 73	* 62	...	* 51	...	...	...
1/4"	81	...	* 75	* 67	* 57	* 51	* 46	...	* 40	* 33	29	* 27	24	...	9
5/16"	* 43	* 37	* 33	* 31	* 29	...	* 24	* 21	...	* 19	...	* 10	...
3/8"	* 29	* 23	* 21	...	* 18	...	* 16	* 14	...	* 11	...	* 7	...
1/2"	* 10	...	...	* 7	...	* 5	...	...	...



COPPER BRAZIER'S RIVETS

OVAL HEAD—In Bulk and 1 and 5 Lb. Boxes



Size	00	0	1	2	3	4	5	6	7	8
No. to Lb.	* 160	* 148	* 66	* 49	* 37	* 28	* 23	* 19	* 13	* 8

FLAT HEAD—In Bulk and 1 and 5 Lb. Boxes

Dia.	Length—Length Measured Under the Head.								
	1/2"	5/8"	3/4"	1"	1 1/4"	1 3/8"	1 1/2"	1 3/4"	2"
1/4"	* 52	* 50	* 48	* 36	* 32	...	* 30	26	25
5/16"	..	..	* 26	* 24	* 21	..	* 21	..	..
3/8"	..	..	..	* 17	* 15	* 13	* 12	* 11	* 10
1/2"	..	..	..	..	..	7	..	..	..



BRASS JACKET RIVETS

OVAL HEAD—1 Lb. Boxes

Ga. No.	13
Length	3/16"
No. to Lb.	860

COPPER HOSE RIVETS

FLAT HEAD—1 Lb. Boxes

Ga. No.	7	7
Length	1/2"	3/4"
No. to Lb.	128	102

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BRASS AND COPPER RIVETS

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses



COUNTERSUNK HEAD COPPER RIVETS

Countersunk 78° including the Angle—In Bulk and 1 and 5 Lb. Boxes

Count to the Lb. indicates Regular Stock Sizes



Diameter	Length											Diameter of Head	Depth of Head
	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	1 3/4"	2"		
1/8"	* 680	* 590	* 452	* 372	* 304	....	....	....	....	....	....	7/32"	1/16"
3/16"	* 212	* 194	* 160	* 125	120	* 110	* 86	* 73	....	....	21/64"	3/32"
1/4"	* 90	* 76	* 73	* 59	* 54	* 46	* 39	33	* 30	7/16"	1/8"
5/16"	* 44	*	* 36	* 29	* 24	....	19	35/64"	5/32"
3/8"	24	....	23	19	17	....	13	21/32"	3/16"



COUNTERSUNK HEAD BRASS RIVETS

In Bulk in 1 Lb. and 5 Lb. Boxes

Count to the Lb. indicates Regular Stock Sizes

Dia.	Length			Dia. of Head	Depth of Head
	1/4"	3/8"	1/2"		
1/8"	842	622	402	7/32"	1/16"
3/16"	...	...	185	21/64"	3/32"

BRASS SPLIT RIVETS

Style	New Number	Old Number	Length	Specification	
				Body	Head
	14—5	2970	5/16"	9/64"	5/16"
	14—6	2970	5/16"	9/64"	5/16"
	14—7	2970	7/16"	9/64"	5/16"
	14—8	2970	9/16"	9/64"	5/16"
	14—10	2970	10/16"	9/64"	5/16"
	14—12	2970	12/16"	9/64"	5/16"

BRASS TUBULAR RIVETS

Coppered Tubular Rivets are Carried in Stock

No. 1—4 1/16 In. Long



Standard Packed
or Bulk



COPPERED SPLIT RIVETS

Packed 1000 to a Box

Style No.	Length	Specification	
		Body	Head
264	1/16"	5/32"	5/16"
264	6/16"	5/32"	5/16"
264	8/16"	5/32"	5/16"
264	10/16"	5/32"	5/16"

New Number	Old Number	Length	Specification	
			Body	Head
3—4	738	4/16"	9/64"	5/16"
3—5	738	5/16"	9/64"	5/16"
* 3—6	738	6/16"	9/64"	5/16"
3—7	738	7/16"	9/64"	5/16"
3—8	738	8/16"	9/64"	5/16"

- * No. 9342—5/16" Long
- * No. 19954—5/16" Long
- * No. 1657—3/16" x 8/16" Long



BRASS AND COPPER WASHERS

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses



BRASS WASHERS

In Bulk

Bolt Sizes

Size Bolt	Inside Diam.	Outside Diam.	Thick-ness	Number to Lb.
$\frac{1}{8}$ "	.140"	$\frac{1}{4}$ "	.025"	3400
$\frac{3}{16}$ "	$\frac{1}{32}$ "	$\frac{1}{2}$ "	.050"	400
* $\frac{1}{4}$ "	$\frac{1}{16}$ "	$\frac{1}{2}$ "	.050"	440
$\frac{1}{4}$ "	$\frac{9}{32}$ "	$\frac{5}{8}$ "	.065"	200
* $\frac{5}{16}$ "	$\frac{11}{32}$ "	$\frac{3}{4}$ "	$\frac{1}{16}$ "	144
* $\frac{5}{16}$ "	$\frac{11}{32}$ "	$\frac{7}{8}$ "	$\frac{1}{16}$ "	103
* $\frac{3}{8}$ "	$\frac{13}{32}$ "	$\frac{3}{4}$ "	$\frac{1}{16}$ "	164
* $\frac{3}{8}$ "	$\frac{13}{32}$ "	1"	$\frac{1}{16}$ "	84
$\frac{7}{16}$ "	$\frac{1}{2}$ "	$1\frac{1}{4}$ "	.080"	36
* $\frac{1}{2}$ "	$\frac{9}{16}$ "	$1\frac{3}{8}$ "	.080"	30
* $\frac{5}{8}$ "	$\frac{11}{16}$ "	$1\frac{3}{4}$ "	.102"	17
* $\frac{3}{4}$ "	$\frac{13}{16}$ "	2"	.102"	13
$\frac{7}{8}$ "	$\frac{15}{16}$ "	$2\frac{1}{4}$ "	.114"	9
1"	$1\frac{1}{16}$ "	$2\frac{1}{2}$ "	.114"	7



BRASS WASHERS

In Bulk

Screw Sizes

Size Screw	Inside Diam.	Outside Diam.	Thick-ness	Number to Lb.
No. 12	$\frac{7}{32}$ "	$\frac{5}{8}$ "	.053"	256
No. 10	$\frac{13}{64}$ "	$\frac{9}{16}$ "	.050"	370
No. 8	.177"	$\frac{17}{32}$ "	.050"	380
No. 7	.166"	$\frac{15}{32}$ "	.045"	420
No. 6	.146"	$\frac{7}{16}$ "	.040"	590
No. 5	.138"	$\frac{13}{32}$ "	.036"	800
No. 4	.128"	$\frac{3}{8}$ "	.028"	1075
No. 6	.149"	$\frac{3}{8}$ "	.031"	1190
No. 8	.168"	$\frac{3}{8}$ "	.031"	1200



COPPER WASHERS

In Bulk

Size Bolt	Inside Diam.	Outside Diam.	Thick-ness	Number to Lb.
No. 3	.344	.106	.025	1400
No. 5	.375	.128	.031	915
No. 6	.438	.146	.040	571
$\frac{3}{16}$ "	$\frac{13}{64}$ "	$\frac{1}{2}$ "	.060"	...
$\frac{3}{16}$ "	$\frac{7}{32}$ "	$\frac{1}{2}$ "	.050"	350
* $\frac{1}{4}$ "	$\frac{9}{32}$ "	$\frac{5}{8}$ "	.065"	200
$\frac{5}{16}$ "	$\frac{11}{32}$ "	$\frac{3}{4}$ "	$\frac{1}{16}$ "	140
$\frac{5}{16}$ "	$\frac{11}{32}$ "	$\frac{5}{8}$ "	$\frac{1}{16}$ "	170
$\frac{3}{8}$ "	$\frac{13}{32}$ "	1"	$\frac{1}{16}$ "	72
$\frac{1}{2}$ "	$\frac{9}{16}$ "	$1\frac{3}{8}$ "	.080"	32
$\frac{5}{8}$ "	$\frac{11}{16}$ "	$1\frac{3}{4}$ "	.102"	16
$\frac{3}{4}$ "	$\frac{13}{16}$ "	2"	.102"	12

SPECIAL RIVETS



Semi-Tubular Aluminum Rivets

Packed in Boxes

Japanned or Coppered Rivets

For Harness—Leather—Canvas and Similar Work



Industrial Rivets

Tubular—Brass and Steel



Split Rivet

All the above styles can be furnished promptly from mill stock in a wide range of sizes. Rivets may also be made to order in any quantity.



Outside Pronged

Miscel.
Products



BRASS MACHINE SCREWS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses



ROUND HEAD

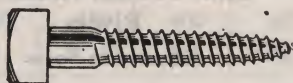
†Indicates Stock Sizes

Threads Per Inch	Common	32	32	24	20
	Less Common	40	36	32	28
Diameter		6	8	10	1/4"
Length					
1/4"	* †	* †	* †		
3/8"	* †	* †	* †		
1/2"	* †	* †	* †		
5/8"	* †	* †	* †		
3/4"	* †	* †	* †		
7/8"	* †	* †	* †		
1"	* †	* †	* †		
1 1/8"		* †	* †		
1 1/4"		* †	* †		
1 1/2"		* †	* †		
2"					

† Also Fillister Head Machine Screws.

NAVAL BRASS

COACH OR LAG SCREWS



Square Head

Gimlet Point

Diameter of Screw	Length Under Head	Diameter of Screw	Length Under Head
5/16" x 1 1/2"		1/2" x 3"	
* 5/16" x 3"		1/2" x 3 1/2"	
3/8" x 2"		1/2" x 4"	
3/8" x 2 1/2"		1/2" x 5"	
3/8" x 3"		1/2" x 6"	
3/8" x 3 1/2"		5/8" x 3"	
3/8" x 4"		5/8" x 3 1/2"	
3/8" x 5"		5/8" x 4"	
3/8" x 6"		5/8" x 5"	
1/2" x 2"		5/8" x 6"	

Fillister Head Wood Screws are carried in stock:
 1 1/2-12" 1-10" 7/8-10" 2-12" 3-14".



FLAT HEAD

†Indicates Stock Sizes

Threads Per Inch	Common	32	32	24	20	18	16	13
	Less Common			32	28	24	24	20
Diameter		6	8	10	1/4"	5/16"	3/8"	1/2"
Length								
1/4"		* †	* †					
3/8"		* †	* †					
1/2"		* †	* †	* †	* †			
5/8"		* †	* †	* †				
3/4"		* †	* †	* †				
7/8"		* †	* †					
1"		* †	* †					
1 1/4"				* †	* †			
1 1/2"			* †			* †	* †	
2"						* †	* †	

HEXAGON HEAD BRASS CAP SCREWS

U. S. Standard Cut Thread

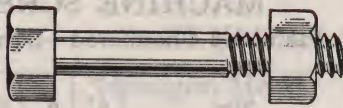


Dia. of Screw	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"
Threads Per Inch	20	18	16	13	11	10
Length						
5/8"			* †			
3/4"	* †		* †	* †		
7/8"						
1"	* †	* †	* †			
1 1/8"						
1 1/4"	* †	* †	* †	* †	* †	
1 3/8"						
1 1/2"	* †	* †	* †	* †	* †	
1 3/4"						
2"	* †	* †	* †	* †	* †	
2 1/2"	* †	* †	* †	* †	* †	* †
3"				* †	* †	* †
3 1/2"						* †
Dia. of Head, Hex.	7/16"	1/2"	9/16"	3/4"	7/8"	1"
Height of Head	3/16"	15/64"	9/32"	3/8"	15/32"	9/16"



NAVAL BRASS MACHINE BOLTS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
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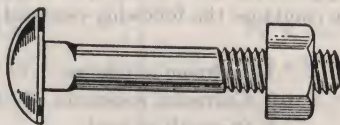


HEXAGON HEADS

HEXAGON NUTS

Diameter of Bolt	Length Under Head	Diameter of Bolt	Length Under Head	Diameter of Bolt	Length Under Head	Diameter of Bolt	Length Under Head	Diameter of Bolt	Length Under Head
* 1/4" x 1 1/2"		* 3/8" x 4 1/2"		* 1/2" x 3 1/2"		* 5/8" x 3 1/4"		* 3/4" x 4"	
* 1/4" x 2"		* 3/8" x 5"		* 1/2" x 4"		* 5/8" x 3 1/2"		* 3/4" x 4 1/2"	
* 1/4" x 2 1/2"		* 3/8" x 6"		* 1/2" x 4 1/2"		* 5/8" x 4"		* 3/4" x 5"	
* 3/8" x 1"		* 3/8" x 7"		1/2" x 5"		* 5/8" x 4 1/2"		7/8" x 5"	
3/8" x 1 1/4"		* 1/2" x 1"		* 5/8" x 1 1/4"		5/8" x 5"		1" x 4"	
* 3/8" x 1 1/2"		* 1/2" x 1 1/4"		* 5/8" x 1 1/2"		* 3/4" x 1 1/2"		1" x 4 1/2"	
* 3/8" x 1 3/4"		* 1/2" x 1 1/2"		* 5/8" x 1 3/4"		* 3/4" x 2"		1" x 5"	
* 3/8" x 2"		1/2" x 1 3/4"		* 5/8" x 2"		3/4" x 2 1/4"		1" x 5 1/2"	
* 3/8" x 2 1/2"		* 1/2" x 2"		* 5/8" x 2 1/4"		* 3/4" x 2 1/2"		1" x 6"	
* 3/8" x 3"		* 1/2" x 2 1/4"		* 5/8" x 2 1/2"		3/4" x 2 3/4"		.....
* 3/8" x 3 1/2"		* 1/2" x 2 1/2"		* 5/8" x 2 3/4"		* 3/4" x 3"		.....
* 3/8" x 4"		* 1/2" x 3"		* 5/8" x 3"		* 3/4" x 3 1/2"		.....

NAVAL BRASS ROUND HEAD CARRIAGE BOLTS



HEXAGON NUTS

SQUARE UNDER HEAD

Diameter of Bolt	Length Under Head	Diameter of Bolt	Length Under Head	Diameter of Bolt	Length Under Head	Diameter of Bolt	Length Under Head	Diameter of Bolt	Length Under Head
1/4" x 1 3/4"		1/4" x 9"		5/16" x 8 1/2"		* 3/8" x 5"		3/8" x 13"	
* 1/4" x 2"		* 5/16" x 2"		5/16" x 9"		3/8" x 5 1/2"		* 1/2" x 2"	
* 1/4" x 2 1/2"		* 5/16" x 2 1/4"		5/16" x 9 1/2"		3/8" x 6 1/2"		* 1/2" x 2 1/2"	
* 1/4" x 3"		* 5/16" x 2 1/2"		5/16" x 10"		* 3/8" x 7"		* 1/2" x 3"	
* 1/4" x 3 1/2"		* 5/16" x 3"		5/16" x 10 1/2"		3/8" x 7 1/2"		* 1/2" x 3 1/2"	
* 1/4" x 4"		* 5/16" x 3 1/2"		5/16" x 12"		* 3/8" x 8"		* 1/2" x 4"	
1/4" x 4 1/2"		* 5/16" x 4"		3/8" x 1 3/4"		3/8" x 8 1/2"		* 1/2" x 5"	
* 1/4" x 5"		5/16" x 4 1/2"		* 3/8" x 2"		3/8" x 9"		* 5/8" x 3 1/2"	
1/4" x 5 1/2"		* 5/16" x 5"		3/8" x 2 1/4"		3/8" x 9 1/2"		* 5/8" x 4"	
1/4" x 6"		5/16" x 5 1/2"		* 3/8" x 2 1/2"		3/8" x 10"		* 5/8" x 5"	
1/4" x 6 1/2"		5/16" x 6"		* 3/8" x 3"		3/8" x 10 1/2"		* 3/4" x 3 1/2"	
1/4" x 7"		5/16" x 6 1/2"		3/8" x 3 1/4"		3/8" x 11"		.....
1/4" x 7 1/2"		5/16" x 7"		* 3/8" x 3 1/2"		3/8" x 11 1/2"		.....
1/4" x 8"		5/16" x 7 1/2"		* 3/8" x 4"		3/8" x 12"		.....
1/4" x 8 1/2"		5/16" x 8"		* 3/8" x 4 1/2"		3/8" x 12 1/2"		.....

Miscel.
Products



***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
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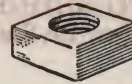


U.S.S. HEXAGON BRASS NUTS

†Indicates Regular Stock Sizes

Bolt Diam.	U. S. Standard			Milled Semi- Finished	Cast
	Threads Per Inch	Width (Inches)	Thick- ness (Inches)		
* $\frac{3}{16}$ "	24	$\frac{3}{8}$ "	$\frac{3}{16}$ "	†	...
* $\frac{1}{4}$ "	20	$\frac{1}{2}$ "	$\frac{1}{4}$ "	†	...
* $\frac{5}{16}$ "	18	$\frac{19}{32}$ "	$\frac{5}{16}$ "	†	...
* $\frac{3}{8}$ "	16	$\frac{11}{16}$ "	$\frac{3}{8}$ "	†	†
* $\frac{7}{16}$ "	14	$\frac{25}{32}$ "	$\frac{7}{16}$ "	†	...
* $\frac{1}{2}$ "	13	$\frac{7}{8}$ "	$\frac{1}{2}$ "	†	†
$\frac{9}{16}$ "	12	$\frac{31}{32}$ "	$\frac{9}{16}$ "	†	...
* $\frac{5}{8}$ "	11	$1\frac{1}{16}$ "	$\frac{5}{8}$ "	†	†
* $\frac{3}{4}$ "	10	$1\frac{1}{4}$ "	$\frac{3}{4}$ "	†	†
$\frac{7}{8}$ "	9	$1\frac{7}{16}$ "	$\frac{7}{8}$ "	†	†
* 1"	8	$1\frac{5}{8}$ "	1"	†	†
$1\frac{1}{4}$ "	7	2"	$1\frac{1}{4}$ "	...	†
$1\frac{1}{2}$ "	6	$2\frac{3}{8}$ "	$1\frac{1}{2}$ "	†	...

Brass Machine Screw Washers in 1 lb. boxes. No. 4, No. 6,
 No. 8, No. 10.



BRASS

MACHINE SCREW NUTS

Plain and Chamfered—Square and Hexagon

Size	* 6"	* 6"	* 8"	* 10"	* 10"	* $\frac{1}{4}$ "	* $\frac{3}{8}$ "
Standard Thread	32	12	32	24	32	20	16

HEXAGON BRASS JAM NUTS

American Standard Thread

Bolt Diam.	Bolt Diam.	Bolt Diam.
* $\frac{1}{8}$ "	* $\frac{9}{16}$ "	* $\frac{9}{16}$ "
* $\frac{3}{16}$ "	* $\frac{7}{8}$ "	* $\frac{5}{8}$ "
* $\frac{1}{4}$ "	* $\frac{1}{2}$ "	* $\frac{3}{4}$ "

Bronze Hanger Screws and Stud Bolts are not carried in Warehouse stocks, but can be furnished promptly from mill stocks.

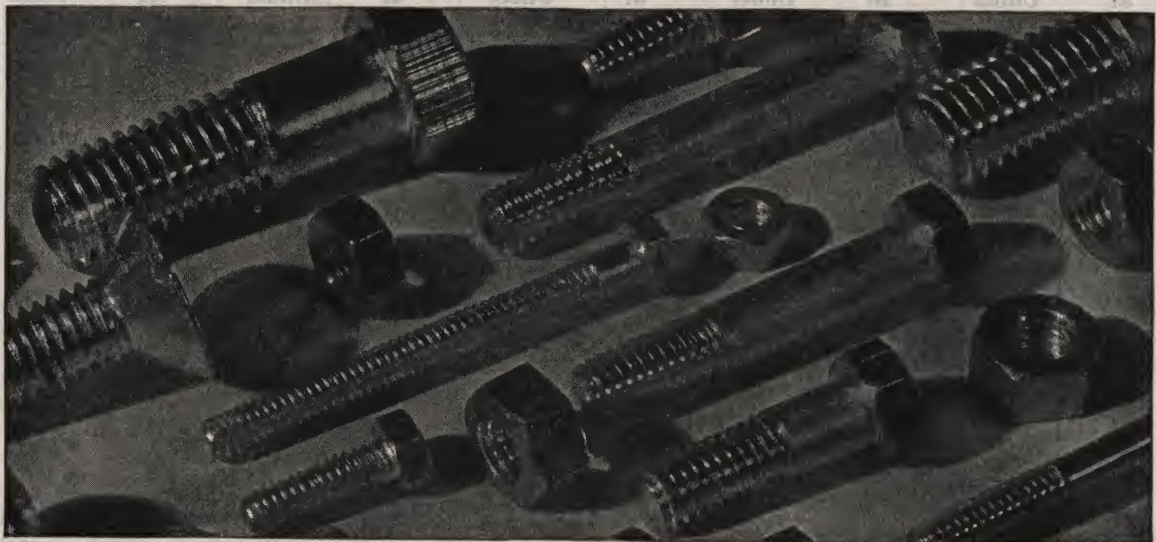
CHASE OLYMPIC BRONZE BOLTS AND NUTS

Chase Olympic Bronze is an approved copper silicon alloy—the result of a thorough investigation of all workable silicon bronze alloys.

All Silicon Bronzes have properties which find wide applications in all fields of engineering, and are outstandingly superior for service in the power and electrical equipment fields where drastic service conditions are encountered. Here it has been used for bolts, nuts, machine screws, lag

screws, wood screws, lock washers, cotter pins and turn-buckles, forgings, nails and spikes, etc. Chase Olympic Bronze combines the following essential characteristics:

1. Extreme toughness
2. Corrosion resistance of Copper
3. Strength of steel
4. Malleability and Ductility





OLYMPIC BRONZE BOLTS, NUTS AND SCREWS



***STARRED ITEMS READY TO SHIP FROM
MILWAUKEE WAREHOUSE STOCKS**
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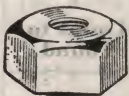


OLYMPIC BRONZE BOLTS

Hexagon Head American Standard

Diameter of Bolt	Length Under Head	Diameter of Bolt	Length Under Head	Diameter of Bolt	Length Under Head	Diameter of Bolt	Length Under Head
* $\frac{1}{4}$ " x $\frac{5}{8}$ "		* $\frac{5}{16}$ " x $2\frac{3}{4}$ "		* $\frac{1}{2}$ " x $\frac{3}{4}$ "		* $\frac{5}{8}$ " x $1\frac{3}{4}$ "	
* $\frac{1}{4}$ " x $\frac{3}{4}$ "		* $\frac{5}{16}$ " x 3"		* $\frac{1}{2}$ " x $\frac{7}{8}$ "		* $\frac{5}{8}$ " x 2"	
* $\frac{1}{4}$ " x 1"		* $\frac{5}{16}$ " x $3\frac{1}{2}$ "		* $\frac{1}{2}$ " x 1"		$\frac{5}{8}$ " x $2\frac{1}{4}$ "	
* $\frac{1}{4}$ " x $1\frac{1}{4}$ "		* $\frac{5}{16}$ " x $3\frac{3}{4}$ "		$\frac{1}{2}$ " x $1\frac{1}{8}$ "		$\frac{5}{8}$ " x $2\frac{1}{2}$ "	
* $\frac{1}{4}$ " x $1\frac{1}{2}$ "		* $\frac{3}{8}$ " x $\frac{3}{4}$ "		* $\frac{1}{2}$ " x $1\frac{1}{4}$ "		$\frac{5}{8}$ " x $2\frac{3}{4}$ "	
$\frac{1}{4}$ " x $1\frac{3}{4}$ "		$\frac{3}{8}$ " x $\frac{7}{8}$ "		* $\frac{1}{2}$ " x $1\frac{1}{2}$ "		$\frac{5}{8}$ " x $3\frac{1}{2}$ "	
* $\frac{1}{4}$ " x $2\frac{1}{4}$ "		* $\frac{3}{8}$ " x 1"		* $\frac{1}{2}$ " x $1\frac{3}{4}$ "		$\frac{5}{8}$ " x 4"	
* $\frac{1}{4}$ " x $2\frac{1}{2}$ "		$\frac{3}{8}$ " x $1\frac{1}{8}$ "		* $\frac{1}{2}$ " x 2"		$\frac{5}{8}$ " x 5"	
$\frac{1}{4}$ " x 3"		* $\frac{3}{8}$ " x $1\frac{1}{4}$ "		* $\frac{1}{2}$ " x $2\frac{1}{4}$ "		$\frac{3}{4}$ " x $1\frac{3}{4}$ "	
$\frac{5}{16}$ " x $\frac{5}{8}$ "		* $\frac{3}{8}$ " x $1\frac{1}{2}$ "		* $\frac{1}{2}$ " x $2\frac{1}{2}$ "		$\frac{3}{4}$ " x 2"	
* $\frac{5}{16}$ " x $\frac{3}{4}$ "		* $\frac{3}{8}$ " x $1\frac{3}{4}$ "		* $\frac{1}{2}$ " x $2\frac{3}{4}$ "		$\frac{3}{4}$ " x $2\frac{1}{4}$ "	
$\frac{5}{16}$ " x $\frac{7}{8}$ "		* $\frac{3}{8}$ " x 2"		* $\frac{1}{2}$ " x 3"		$\frac{3}{4}$ " x $2\frac{5}{8}$ "	
* $\frac{5}{16}$ " x 1"		* $\frac{3}{8}$ " x $2\frac{1}{4}$ "		$\frac{1}{2}$ " x $3\frac{1}{4}$ "		$\frac{3}{4}$ " x 3"	
$\frac{5}{16}$ " x $1\frac{1}{8}$ "		* $\frac{3}{8}$ " x $2\frac{1}{2}$ "		* $\frac{1}{2}$ " x $3\frac{1}{2}$ "		$\frac{3}{4}$ " x 4"	
* $\frac{5}{16}$ " x $1\frac{1}{4}$ "		$\frac{3}{8}$ " x $2\frac{3}{4}$ "		* $\frac{1}{2}$ " x $3\frac{3}{4}$ "		Threaded to within 4" of Head	
$\frac{5}{16}$ " x $1\frac{3}{8}$ "		* $\frac{3}{8}$ " x 3"		$\frac{1}{2}$ " x 4"			
* $\frac{5}{16}$ " x $1\frac{1}{2}$ "		$\frac{3}{8}$ " x $3\frac{1}{4}$ "		* $\frac{1}{2}$ " x $4\frac{1}{2}$ "		$\frac{1}{2}$ " x 8"	
* $\frac{5}{16}$ " x $1\frac{3}{4}$ "		$\frac{3}{8}$ " x $3\frac{1}{2}$ "		$\frac{1}{2}$ " x 5"		$\frac{5}{8}$ " x 8"	
* $\frac{5}{16}$ " x 2"		$\frac{3}{8}$ " x $3\frac{3}{4}$ "		$\frac{5}{8}$ " x 1"			
* $\frac{5}{16}$ " x $2\frac{1}{4}$ "		* $\frac{3}{8}$ " x 4"		$\frac{5}{8}$ " x $1\frac{1}{4}$ "			
* $\frac{5}{16}$ " x $2\frac{1}{2}$ "		$\frac{3}{8}$ " x 5"		* $\frac{5}{8}$ " x $1\frac{1}{2}$ "			

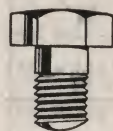
OLYMPIC BRONZE NUTS



Hexagon
American Standard

Size	Size	Size	Size
* $\frac{1}{4}$ "	* $\frac{3}{8}$ "	* $\frac{5}{8}$ "	* $\frac{7}{8}$ "
* $\frac{5}{16}$ "	* $\frac{1}{2}$ "	* $\frac{3}{4}$ "	* 1"

OLYMPIC BRONZE BOLTS



S.A.E. Thread

Diam. of Bolt	Length Under Head	Diam. of Bolt	Length Under Head	Diam. of Bolt	Length Under Head
$\frac{1}{16}$ " x $1\frac{1}{4}$ "		$\frac{1}{2}$ " x $1\frac{1}{2}$ "		$\frac{9}{16}$ " x $1\frac{3}{4}$ "	
$\frac{1}{16}$ " x $1\frac{1}{2}$ "		$\frac{1}{2}$ " x $1\frac{3}{4}$ "		$\frac{5}{8}$ " x 2"	

Miscel.
Products



OLYMPIC BRONZE BOLTS, NUTS AND SCREWS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
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OLYMPIC BRONZE CAP SCREWS

Hexagon Head—Cold Headed
 American Standard Rolled Thread

Diameter	Length	Diameter	Length	Diameter	Length	Diameter	Length
$\frac{1}{4}$ "	$\times \frac{5}{8}$ "	$\frac{5}{16}$ "	$\times 1\frac{1}{4}$ "	$\frac{3}{8}$ "	$\times 2$ "	$\frac{1}{2}$ "	$\times 2$ "
$\frac{1}{4}$ "	$\times \frac{3}{4}$ "	$\frac{5}{16}$ "	$\times 1\frac{3}{8}$ "	$\frac{3}{8}$ "	$\times 2\frac{1}{4}$ "	$\frac{1}{2}$ "	$\times 3\frac{1}{2}$ "
$\frac{1}{4}$ "	$\times 1$ "	$\frac{5}{16}$ "	$\times 1\frac{1}{2}$ "	$\frac{3}{8}$ "	$\times 2\frac{1}{2}$ "	$\frac{5}{8}$ "	$\times 1$ "
$\frac{1}{4}$ "	$\times 1\frac{1}{4}$ "	$\frac{5}{16}$ "	$\times 1\frac{3}{4}$ "	$\frac{3}{8}$ "	$\times 3$ "	$\frac{5}{8}$ "	$\times 1\frac{1}{4}$ "
$\frac{1}{4}$ "	$\times 1\frac{1}{2}$ "	$\frac{3}{8}$ "	$\times \frac{3}{4}$ "	$\frac{3}{8}$ "	$\times 4$ "	$\frac{5}{8}$ "	$\times 1\frac{1}{2}$ "
$\frac{1}{4}$ "	$\times 1\frac{3}{4}$ "	$\frac{3}{8}$ "	$\times \frac{7}{8}$ "	$\frac{1}{2}$ "	$\times \frac{7}{8}$ "	$\frac{5}{8}$ "	$\times 1\frac{3}{4}$ "
$\frac{5}{16}$ "	$\times \frac{5}{8}$ "	$\frac{3}{8}$ "	$\times 1$ "	$\frac{1}{2}$ "	$\times 1$ "	$\frac{5}{8}$ "	$\times 2$ "
$\frac{5}{16}$ "	$\times \frac{3}{4}$ "	$\frac{3}{8}$ "	$\times 1\frac{1}{8}$ "	$\frac{1}{2}$ "	$\times 1\frac{1}{8}$ "	$\frac{3}{4}$ "	$\times 1\frac{3}{4}$ "
$\frac{5}{16}$ "	$\times \frac{7}{8}$ "	$\frac{3}{8}$ "	$\times 1\frac{1}{4}$ "	$\frac{1}{2}$ "	$\times 1\frac{1}{4}$ "	$\frac{3}{4}$ "	$\times 2$ "
$\frac{5}{16}$ "	$\times 1$ "	$\frac{3}{8}$ "	$\times 1\frac{1}{2}$ "	$\frac{1}{2}$ "	$\times 1\frac{1}{2}$ "		
$\frac{5}{16}$ "	$\times 1\frac{1}{8}$ "	$\frac{3}{8}$ "	$\times 1\frac{3}{4}$ "	$\frac{1}{2}$ "	$\times 1\frac{3}{4}$ "		

OLYMPIC BRONZE MACHINE SCREWS

Round Head

Screw Diam.	Threads to Inch	Length													
6	32	* ¼"	* ⅝"	....	....	....	....	....	* ⅞"	....	....	....	....	....	....
8	32	* ¼"	* ⅝"	* ⅜"	....	* ½"	* ⅝"	* ¾"	* ⅞"	* 1"	* 1⅛"	* 1¼"	* 1⅜"	....	* 2½"
10	32	....	* ⅝"	* ⅜"	* ⅞"	* ½"	* ⅝"	* ¾"	* ⅞"	* 1"	* 1⅛"	* 1¼"	* 1⅜"	....	....
10	24	....	....	....	....	* ½"	....	* ¾"	....	....	....	....	....	....	....
12	24	....	....	* ⅜"	....	* ½"	....	* ¾"	....	....	....	....	....	....	....
¼"	20	....	....	* ⅜"	....	* ½"	* ⅝"	* ¾"	* ⅞"	* 1"	....	* 1¼"	* 1⅜"	* 1⅝"	....
⅕"	18	....	....	....	....	* ½"	* ⅝"	* ¾"	* ⅞"	* 1"	....	* 1¼"	....	....	....
⅕"	24	....	....	....	....	* ½"	....	....	....	....	....	....	....	....	....

Fillister Head

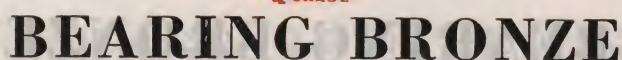
Flat Head

Olympic Bronze Machine Screw Nuts
 6-32, 8-32, 10-24, 10-32, 12-24, $\frac{1}{4}$ "-20, $\frac{5}{16}$ "-18.

Screw Diam.	8	10	12	$\frac{1}{4}$ "	$\frac{1}{4}$ "
Threads Per Inch	32	32	24	20	20
Length					
$\frac{3}{8}$"	* \dagger	....	....	....	....
$\frac{7}{16}$"	....	....	* \dagger	....	....
$\frac{1}{2}$"	....	* \dagger	....	* \dagger	* \dagger
$\frac{5}{8}$"	* \dagger	....	....	* \dagger	* \dagger
$\frac{3}{4}$"	....	....	....	* \dagger	* \dagger

OLYMPIC BRONZE LOCK WASHERS

Bolt Size	Thickness	O. D. Size	Count to Pound
* $\frac{1}{4}$ "	$\frac{1}{16}$ "	$\frac{7}{16}$ "	...
* $\frac{5}{16}$ "	$\frac{1}{16}$ "	$\frac{9}{16}$ "	...
* $\frac{3}{8}$ "	$\frac{3}{32}$ "	$\frac{5}{8}$ "	...
* $\frac{1}{2}$ "	$\frac{1}{8}$ "	$2\frac{7}{32}$ "	...
* $\frac{5}{8}$ "	$\frac{5}{32}$ "	$3\frac{3}{32}$ "	...



Remaining Sizes Can Be Shipped From Our Other Warehouses

SOLID BARS—12 Inches Long

CORED BARS—12 Inches Long

**Miscel.
Products**

97



BEARING BRONZE

*STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS
Remaining Sizes Can Be Shipped From Our Other Warehouses

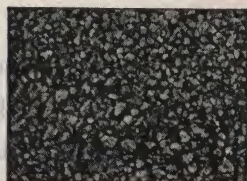
CORED BARS—12 Inches Long

Out. Dia.	In. Dia.	Approx. Wt. Lbs.	Out. Dia.	In. Dia.	Approx. Wt. Lbs.	Out. Dia.	In. Dia.	Approx. Wt. Lbs.	Out. Dia.	In. Dia.	Approx. Wt. Lbs.
2 3/4"	x 1 3/4"	13 1/2	3 3/4"	x 1"	38 7/8	4 1/2"	x 2"	46 1/2	5 1/4"	x 4"	38 1/2
2 3/4"	x 1 7/8"	12 1/4	3 3/4"	x 1 1/4"	37 1/4	4 1/2"	x 2 1/4"	43 3/4	5 1/4"	x 4 1/4"	33
2 3/4"	x 2"	10 1/4	3 3/4"	x 1 1/2"	35	4 1/2"	x 2 1/2"	40	5 1/2"	x 2"	80 1/2
2 7/8"	x 1 1/4"	19 3/4	3 3/4"	x 1 3/4"	32 3/4	4 1/2"	x 2 5/8"	38 1/4	5 1/2"	x 2 1/4"	77 3/4
2 7/8"	x 1 3/8"	19	3 3/4"	x 2"	29 1/2	4 1/2"	x 2 3/4"	36 1/4	5 1/2"	x 2 1/2"	74 1/4
2 7/8"	x 1 1/2"	17 3/4	3 3/4"	x 2 1/8"	28	4 1/2"	x 2 7/8"	34 1/4	5 1/2"	x 2 3/4"	70 1/4
2 7/8"	x 1 5/8"	16 1/2	3 3/4"	x 2 1/4"	26 3/4	4 1/2"	x 3"	32	5 1/2"	x 3"	66
2 7/8"	x 1 3/4"	15 1/2	3 3/4"	x 2 3/8"	25 1/8	4 1/2"	x 3 1/4"	27	5 1/2"	x 3 1/4"	61
2 7/8"	x 1 7/8"	14 1/4	3 3/4"	x 2 1/2"	23	4 1/2"	x 3 1/2"	21 3/4	5 1/2"	x 3 1/2"	55
3"	x 1"	25	3 3/4"	x 2 5/8"	21 1/4	4 3/4"	x 1 1/2"	60	5 1/2"	x 3 3/4"	51
3"	x 1 1/8"	23 3/4	3 3/4"	x 2 3/4"	19 1/4	4 3/4"	x 1 3/4"	57 3/4	5 1/2"	x 4"	45 1/2
3"	x 1 1/4"	22 3/4	4"	x 1"	46	4 3/4"	x 2"	54 1/2	5 1/2"	x 4 1/4"	40
3"	x 1 3/8"	21 1/4	4"	x 1 1/4"	44 1/2	4 3/4"	x 2 1/4"	51 3/4	5 1/2"	x 4 1/2"	34
3"	x 1 1/2"	20	4"	x 1 1/2"	42	4 3/4"	x 2 1/2"	48	5 3/4"	x 2"	87 1/2
3"	x 1 5/8"	19	4"	x 1 3/4"	40	4 3/4"	x 2 3/4"	44 1/4	5 3/4"	x 2 1/4"	84 3/4
3"	x 1 3/4"	17 3/4	4"	x 2"	37	4 3/4"	x 3"	40	5 3/4"	x 2 1/2"	81 1/4
3"	x 1 7/8"	16 1/2	4"	x 2 1/4"	34	4 3/4"	x 3 1/4"	35	5 3/4"	x 2 3/4"	77 1/4
3"	x 2"	15 1/4	4"	x 2 3/8"	32 1/4	4 3/4"	x 3 1/2"	29 3/4	5 3/4"	x 3"	73
3 1/4"	x 1"	28 7/8	4"	x 2 1/2"	30	4 3/4"	x 3 3/4"	25	5 3/4"	x 3 1/4"	68
3 1/4"	x 1 1/4"	27 1/4	4"	x 2 5/8"	28	5"	x 1 1/2"	70	5 3/4"	x 3 1/2"	62
3 1/4"	x 1 3/8"	26 1/4	4"	x 2 3/4"	26 1/4	5"	x 1 3/4"	67 3/4	5 3/4"	x 3 3/4"	58
3 1/4"	x 1 1/2"	25	4"	x 2 7/8"	24	5"	x 2"	64 1/2	5 3/4"	x 4"	52 1/2
3 1/4"	x 1 5/8"	24	4"	x 3"	21 1/2	5"	x 2 1/4"	61 3/4	5 3/4"	x 4 1/4"	47
3 1/4"	x 1 3/4"	22 3/4	4 1/4"	x 1"	49 7/8	5"	x 2 1/2"	58	5 3/4"	x 4 1/2"	41
3 1/4"	x 1 7/8"	21 1/2	4 1/4"	x 1 1/4"	48 1/4	5"	x 2 3/4"	54 1/4	5 3/4"	x 4 3/4"	34
3 1/4"	x 2"	19 1/4	4 1/4"	x 1 1/2"	46	5"	x 3"	50	6"	x 2"	103 1/2
3 1/4"	x 2 1/8"	18	4 1/4"	x 1 3/4"	43 3/4	5"	x 3 1/4"	45	6"	x 2 1/4"	100 3/4
3 1/4"	x 2 1/4"	16 3/4	4 1/4"	x 2"	40 1/2	5"	x 3 1/2"	39	6"	x 2 1/2"	97 1/2
3 1/2"	x 1"	34 3/4	4 1/4"	x 2 1/4"	37 3/4	5"	x 3 3/4"	35	6"	x 2 3/4"	93 1/4
3 1/2"	x 1 1/4"	33	4 1/4"	x 2 3/8"	36 1/8	5"	x 4"	29 1/2	6"	x 3"	89
3 1/2"	x 1 1/2"	30 3/4	4 1/4"	x 2 1/2"	34	5 1/4"	x 2"	73 1/2	6"	x 3 1/4"	84
3 1/2"	x 1 3/4"	28 1/2	4 1/4"	x 2 5/8"	32 1/4	5 1/4"	x 2 1/4"	70 3/4	6"	x 3 1/2"	78
3 1/2"	x 1 7/8"	27 1/4	4 1/4"	x 2 3/4"	30 1/4	5 1/4"	x 2 1/2"	67 1/4	6"	x 3 3/4"	74
3 1/2"	x 2"	25 1/4	4 1/4"	x 2 7/8"	28 1/4	5 1/4"	x 2 3/4"	63 1/4	6"	x 4"	68 1/2
3 1/2"	x 2 1/8"	24	4 1/4"	x 3"	26	5 1/4"	x 3"	59	6"	x 4 1/4"	63
3 1/2"	x 2 1/4"	22 1/2	4 1/2"	x 1 1/4"	54 1/4	5 1/4"	x 3 1/4"	54	6"	x 4 1/2"	57
3 1/2"	x 2 3/8"	20 7/8	4 1/2"	x 1 1/2"	52	5 1/4"	x 3 1/2"	48	6"	x 4 3/4"	50
3 1/2"	x 2 1/2"	18 3/4	4 1/2"	x 1 3/4"	49 3/4	5 1/4"	x 3 3/4"	44	6"	x 5"	40

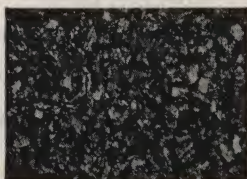
Prices Quoted Upon Application



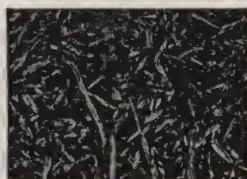
CHASE BRASS SPELTER SOLDER



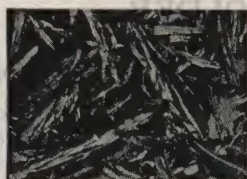
No. 10
Med. Gray Quick Running



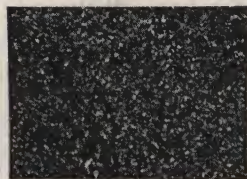
No. 25
Fine Round Grain



No. 23
Extra Fine Long Grain



No. 21
Medium Long Grain



No. 12
Fine Grain Gray

For Brazing Copper, Brass, Steel and Cast Iron

The accompanying illustrations are actual size of material and show the various kinds of spelter solder carried in our warehouses ready for immediate shipment.

Nos. 20 to 26, inclusive, are best adapted for brazing copper, brass and steel.

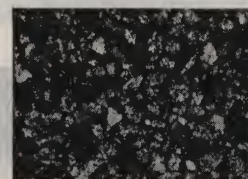
Nos. 10 and 12, "XX" fine grain gray, for brazing fine brass. These grades are free flowing and are especially adapted for gas fixture work and for brazing copper pipe to brass fittings.

The requirements of brazing solder, especially in connection with copper work for steam purposes, necessitate a quality that can be absolutely relied upon to flow freely and produce maximum strength of seam. Chase Brass Spelter Solder is used exclusively by many large coppersmiths, ship-builders and other consumers who are technical in their requirements. Where a high grade spelter solder is required, do not fail to specify "Chase Brass Spelter Solder."

Prices upon Application



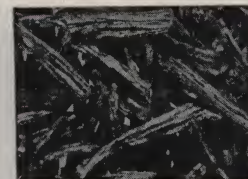
No. 26
Extra Fine Round Grain



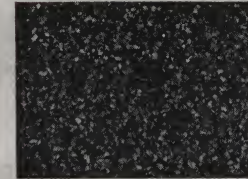
No. 24
Coarse Round Grain



No. 22
Fine Long Grain



No. 20
Coarse Long Grain



No. 41
Fine Round Grain

Brazing Compound
In 1 lb. Containers

Pure Tin
In bars of approximately 1 1/4 lb. each

Hack Saw Blades
For Sweat Fittings

Chase Special Solder
1 lb. Spools For Sweat Fittings

Navaloy and
Merit Metal Babbitt

Steel Wool
No. 00—12 oz. Packages
(16 Rolls to a Package)

Nokorode Soldering Paste
2 oz. Cans

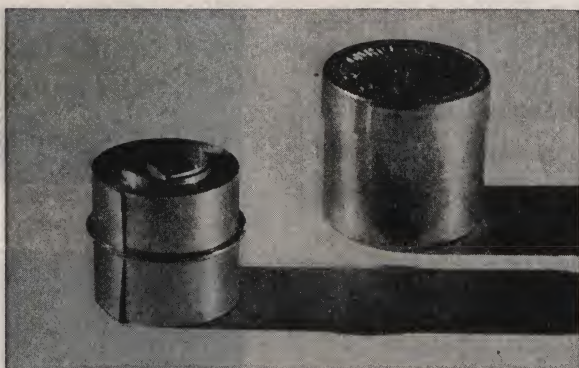
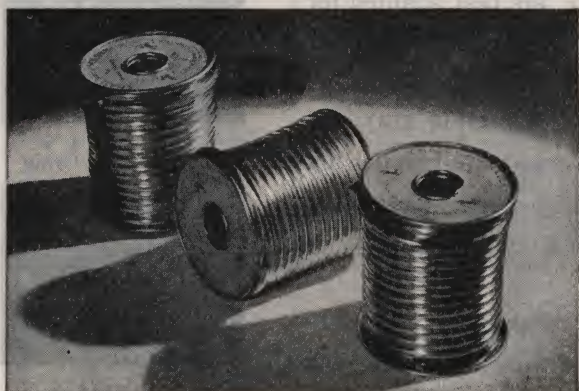
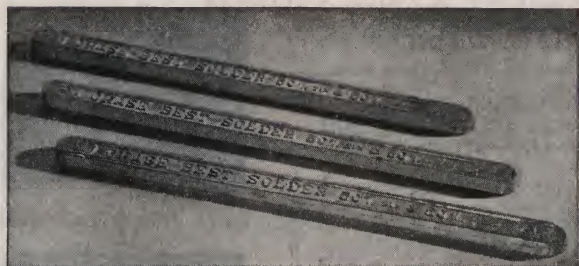
Chase Best Solder
For Sweat Fittings (50-50)

Lead
In Caulking Bars

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Products



CHASE TIN AND LEAD SOLDER



In Bars . . . Chase Tin and Lead Solder is stocked in Bars in different mixtures for various purposes. A customer's name may be put on the bars without extra charge provided his initial order is for 2,000 lbs. or more. Commercial grades including 46% tin—54% lead (Chase X) are carried in mill stock. The following grades are carried in warehouse stock: Chase Best Solder * (50-50)—Chase X Solder (40-60)—Chase Best Capping Bar Solder (50-50).

In Spools . . . Chase Tin and Lead Solder is stocked in 1 lb. spools in three mixtures* Chase Special Solder (95-5), *Chase Best Solder (50-50), and Chase X Solder (40-60). We also stock Electrical Wire Solder (30-70) in 50 lb. spools.

* 95.5 stocked in 5 lb. spools.

SILVER SOLDER

Chase Silver Solder is especially recommended for brazing band saws and other articles where a specially high quality solder is required. It is packed in one ounce (Troy weight) metal containers in the following sizes:

.003 or 40 B.W.G. thick— $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ ",
 $\frac{7}{8}$ " widths.

.004 or 36 B.W.G. thick— $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ ",
 $\frac{7}{8}$ " widths.

COPPER ALLOY

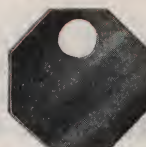
Copper Alloy for use in the manufacture of gold and silver products. Guaranteed 99.9% fine or substantially chemically pure. Carried in stock in size No. 2 in 10 lb. containers, and in bulk cases of 100 lbs.



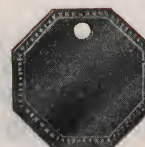
BRASS NUMBERING CHECKS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

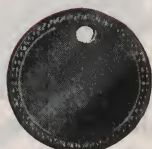
Packed in 5 Pound Boxes
 Prices Upon Application



No. 19



No. 9



No. 7



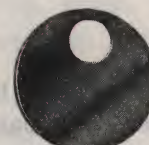
No. 1



No. 4



No. 12



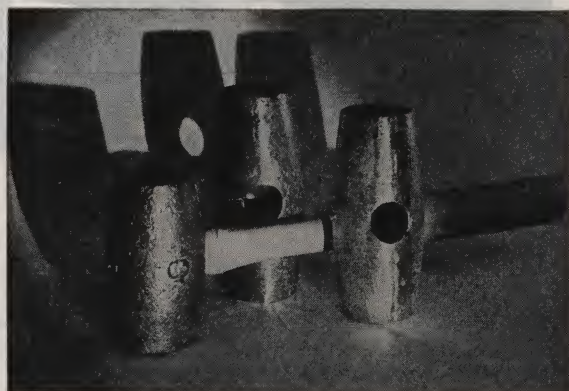
No. 51

Check No.	Shape	Outside Diam.	Hole Size	Count to Pound	Check No.	Shape	Outside Diam.	Hole Size	Count to Pound
19	Hexagon	1½"	⅜"	54	4	Round	5¼"	⅛"	134
9	Hexagon	1⅛"	⅛"	92	12	Round	1⅝"	⅝"	62
7	Round	1⅛"	⅛"	94	51	Round	1⅜"	⅜"	68
1	Round	3¼"	⅛"	130					

COPPER HAMMERS

Copper Hammers are carried in stock in the following weights per hammer (without handles). Prices of hammers, with or without handles, will be quoted on application.

½ lb.	2½ lbs.	6 lbs.
* 1 lb.	* 3 lbs.	8 lbs.
1½ lbs.	* 4 lbs.	10 lbs.
* 2 lbs.	5 lbs.	



RED METAL SASH CHAIN

Chain No.	Max. Sash Weight	Contents of Full Reel
30 or 0	100 lbs.	500 ft.
35 or 2	150 lbs.	500 ft.
40 or 1	225 lbs.	500 ft.
50 or A	300 lbs.	500 ft.
60 or A	See Note†	250 ft.

†Note: No. 60 is intended for use where heavier and stronger chain is required. The tensile strength of No. 60 is approximately 900 pounds.



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 Products



FLOOR DIVIDING STRIPS

(T.M.C.—Del Turco Types)

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

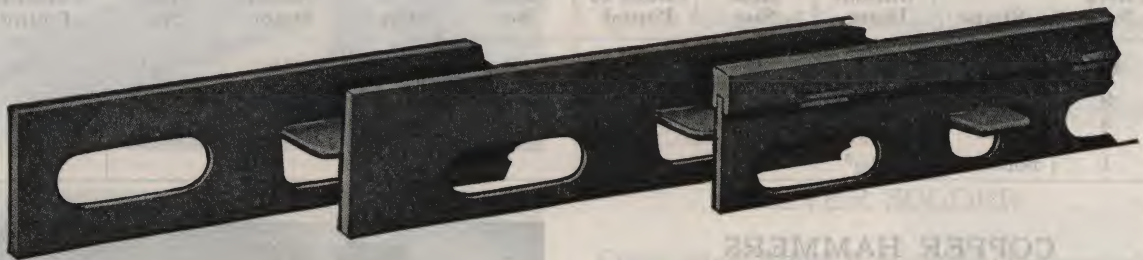
Floor dividing strips should be specified for all Terrazzo, Composition and Cement Floors. These strips will localize cracks so that they will not travel to the surface of the floor. Also, they will insure a uniform floor thickness and

permit execution of attractive patterns and designs. These pages illustrate standard sizes of Chase floor dividing strips which may be obtained in either Brass, Nickel Silver or Zinc from Chase warehouse stocks.

FOR TERRAZZO FLOORS—T.M.C. TYPE

All T.M.C. type floor dividing strips are manufactured with patented wings that serve as an accurate measuring gage for a uniform thickness of Terrazzo aggregate. With these strips, architects can be sure of getting $\frac{1}{2}$ ", $\frac{5}{8}$ ", or

$\frac{3}{4}$ " of surface coating as called for in their specifications. All strips are full size, straight, and free from waves and curvature. They are easily set and time is saved in rubbing.



Standard lengths 6 feet long

- Type No. 10—1" wide 20 B. & S. Gage
- *Type No. 11— $1\frac{1}{4}$ " wide 20 B. & S. Gage
- *Type No. 12—1" wide 18 B. & S. Gage
- *Type No. 13— $1\frac{1}{4}$ " wide 18 B. & S. Gage

- *Type No. 14— $1\frac{1}{4}$ " wide 16 B. & S. Gage
- Type No. 17—1" wide 16 B. & S. Gage
- *Type No. 15— $1\frac{1}{4}$ " wide 14 B. & S. Gage
- Type No. 16— $1\frac{1}{4}$ " wide 12 B. & S. Gage
- Type No. 42— $1\frac{1}{4}$ " wide 9 B. & S. Gage

- Type No. 18—1" wide 14 B. & S. Gage
- Type No. 19—1" wide 12 B. & S. Gage
- Type No. 19-A— $1\frac{1}{8}$ " wide 12 B. & S. Gage

- *Type No. 20— $1\frac{1}{4}$ " wide $\frac{1}{8}$ " Top
- Type No. 50— $1\frac{1}{4}$ " wide $\frac{3}{16}$ " Top
- Type No. 21— $1\frac{1}{4}$ " wide $\frac{1}{4}$ " Top
- Type No. 60— $1\frac{1}{4}$ " wide $\frac{3}{8}$ " Top
- Type No. 61— $1\frac{1}{4}$ " wide $\frac{1}{2}$ " Top

FOR TERRAZZO FLOORS—DEL TURCO TYPE



Del Turco type strips have a double groove or corrugation in the center that not only acts as an anchor but adds rigidity to the strips. Recommended where light gage strips and straight lines are wanted.

Standard lengths 6 feet long

- *Type No. 101— $1\frac{1}{4}$ " wide 20 B. & S. Gage
- *Type No. 102— $1\frac{1}{4}$ " wide 19 B. & S. Gage
- *Type No. 160— $1\frac{1}{4}$ " wide 18 B. & S. Gage

- *Type No. 103—1" wide 20 B. & S. Gage
- *Type No. 104—1" wide 19 B. & S. Gage
- Type No. 161—1" wide 18 B. & S. Gage



FLOOR DIVIDING STRIPS

(T.M.C.—Del Turco Types)

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

FOR COMBINATION TERRAZZO AND LINOLEUM FLOORS



These strips are designed to be used between terrazzo and linoleum or tile floors, having an accurate shelf to fit linoleum or tile of various thicknesses. They are a necessary detail for the proper laying of linoleum or rubber tile to a terrazzo border or cove base in hospitals, hotels, clubs, churches, and office buildings. They establish a definite level for the cement underbed.

Standard lengths 6 feet long

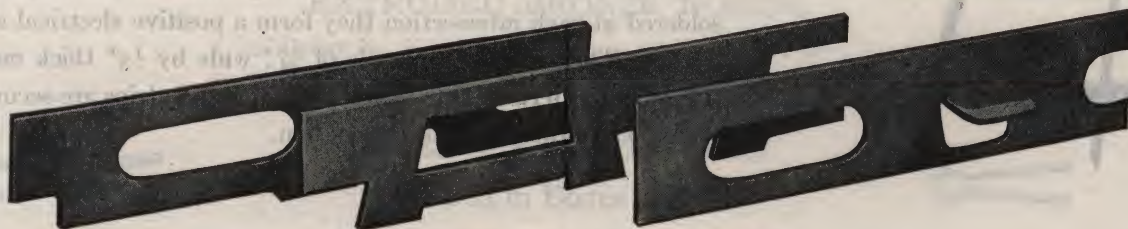
Type No. 52— $\frac{1}{8}$ " top x $1\frac{1}{4}$ " wide for $\frac{3}{16}$ " linoleum

Type No. 52-A— $\frac{1}{8}$ " top x $1\frac{1}{4}$ " wide for $\frac{1}{4}$ " linoleum

FOR CEMENT FLOORS—T.M.C. TYPE

These strips are recommended for cement floors where uniform or alternating colors are desired.

Floors installed with T.M.C. Strips present a smooth, sanitary finish without cracks or crevices.



Standard lengths 6 feet long

	For One-Color Cement										For 2-Color Cement	
	29	30	43	46	44	47	45	48	31	32	28	27
Type.....												
Width.....	1"	$1\frac{1}{4}$ "	1"	$1\frac{1}{4}$ "	1"	$1\frac{1}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{4}$ "	$1\frac{1}{4}$ "	$1\frac{1}{4}$ "	$1\frac{3}{8}$ "
B. & S. Gage No...	18	18	16	16	14	14	12	12	$\frac{1}{8}$ " top	$\frac{1}{4}$ " top	18	18

ANGLE STRIPS



Angle Strips are used as dividers for composition and Magnesite Terrazzo Floors. Also as dividers between the plaster wall and the terrazzo or cement base.

Standard lengths 6 feet long

Type No. 38— $\frac{3}{8}$ "x $\frac{5}{8}$ "x20 B. & S. Gage Type No. 40— $\frac{5}{8}$ "x $\frac{5}{8}$ "x20 B. & S. Gage
 Type No. 39— $\frac{3}{8}$ "x $\frac{5}{8}$ "x18 B. & S. Gage Type No. 41— $\frac{5}{8}$ "x $\frac{5}{8}$ "x18 B. & S. Gage
 Type No. 38-A— $\frac{1}{2}$ "x $\frac{1}{2}$ "x20 B. & S. Gage Type No. 40-A— $\frac{3}{4}$ "x $\frac{1}{2}$ "x20 B. & S. Gage
 Type No. 39-A— $\frac{1}{2}$ "x $\frac{1}{2}$ "x18 B. & S. Gage Type No. 41-A— $\frac{3}{4}$ "x $\frac{1}{2}$ "x18 B. & S. Gage

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FLOOR DIVIDING STRIP

(T.M.C.—Del Turco Types)

COVE BASE DIVIDERS



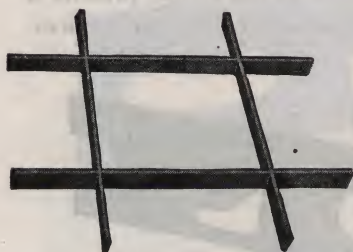
Cove Base Dividers are made with wide or narrow toe, whichever may be desired. Punched with patent T.M.C. flange to insure accurate finish. Furnished in all thicknesses from No. 20 B. & S. Gage to $\frac{1}{4}$ " top.

Standard Sizes

- * 1" Radius—6" High—wide toe
- * $1\frac{1}{2}$ " Radius—6" High—wide toe
- 1" Radius—6" High—narrow toe
- $1\frac{1}{2}$ " Radius—6" High—narrow toe

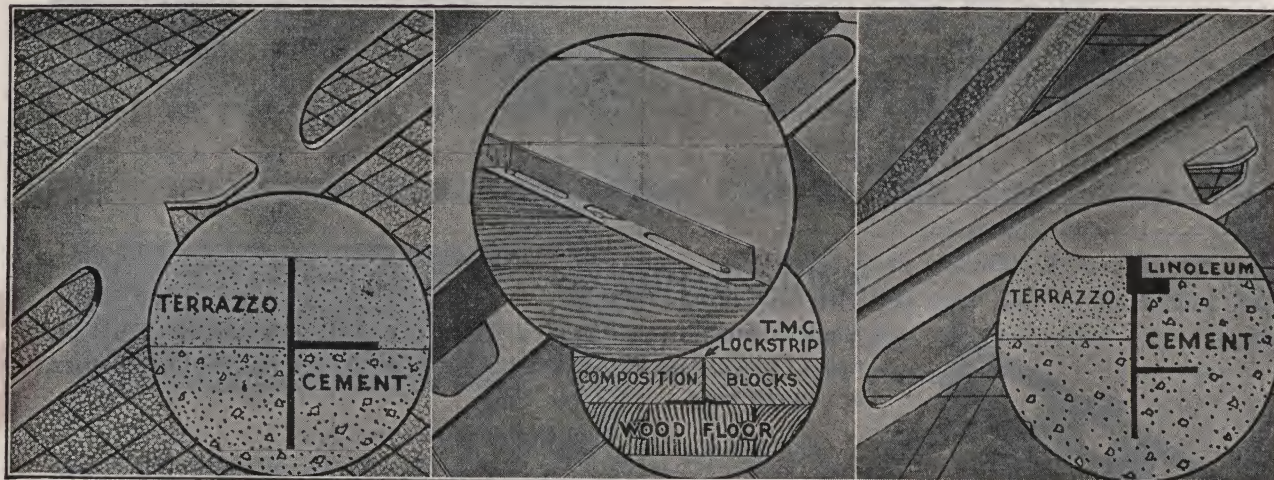
SLOTTED GRILLES

For Hospital Operating Rooms



Slotted grilles should be installed in all hospital operating rooms to ground static electricity. Installed parallel to the walls and soldered at each intersection they form a positive electrical connection. These grilles are made of $\frac{3}{4}$ " wide by $\frac{1}{8}$ " thick metal slotted and interlocked to form 6" squares. All strips are securely soldered together at each intersection.

CROSS-SECTION DETAILS



T.M.C. Lockstrip installed in
Terrazzo Floor

T.M.C. Angle Strip installed
in Composition Block Floor

T.M.C. Heavy Linoleum Curb
Strip with Terrazzo Border



MISCELLANEOUS ITEMS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
 Remaining Sizes Can Be Shipped From Our Other Warehouses

EXTRUDED BRONZE THRESHOLDS

Style 349	Style 352	Style 722	Style 783
30 $\frac{1}{4}$ Inches	30 $\frac{1}{4}$ Inches	30 $\frac{1}{4}$ Inches	30 $\frac{1}{4}$ Inches
32 $\frac{1}{4}$ Inches	32 $\frac{1}{4}$ Inches	32 $\frac{1}{4}$ Inches	32 $\frac{1}{4}$ Inches
34 $\frac{1}{4}$ Inches	34 $\frac{1}{4}$ Inches	34 $\frac{1}{4}$ Inches	34 $\frac{1}{4}$ Inches
36 $\frac{1}{4}$ Inches	36 $\frac{1}{4}$ Inches	36 $\frac{1}{4}$ Inches	36 $\frac{1}{4}$ Inches
12 Feet	12 Feet	12 Feet	12 Feet

EXTRUDED BRONZE DOOR SADDLES

Carried in stock in any length up to 14 Feet

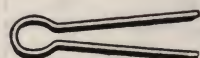
4" Corrugated (Design No. 215)	* 4" Corrugated (Design No. 215A)
5" Corrugated (Design No. 216)	* 5" Corrugated (Design No. 216A)
6" Corrugated (Design No. 217)	6" Corrugated (Design No. 217A)
4" Plain (Design No. 218)	* 4" Plain (Design No. 218A)
5" Plain (Design No. 219)	* 5" Plain (Design No. 219A)
6" Plain (Design No. 220)	* 6" Plain (Design No. 220A)

EXTRUDED BRONZE NOSING

* $\frac{1}{4}$ " Design No. 553	* $\frac{1}{8}$ " Design No. 556
* $\frac{3}{16}$ " Design No. 554	* $\frac{3}{16}$ " Design No. 557

BRASS SPRING COTTERS

Packed in Boxes of 100



Diameter	Length							
$\frac{1}{16}$ "	* $\frac{1}{2}$ "	* $\frac{3}{4}$ "	* 1"	.....	.....	.....	.....	.....
$\frac{3}{32}$ "	* $\frac{3}{4}$ "	* 1"	* $1\frac{1}{8}$ "	* $1\frac{1}{4}$ "	* $1\frac{1}{2}$"	.....	.....
$\frac{1}{8}$ "	* $\frac{3}{4}$ "	* 1"	.....	* $1\frac{1}{4}$ "	* $1\frac{1}{2}$ "	* 2"	.....
$\frac{3}{16}$ "	* $1\frac{1}{4}$ "	* $1\frac{1}{2}$ "	* 2"	.....
$\frac{1}{4}$ "	* $1\frac{1}{2}$ "	* 2"	* $2\frac{1}{2}$ "

PHOSPHOR BRONZE TILLER ROPE

In 500 Foot Reels

Diameter	No. of Strands	Wires in Each Strand	Number of Hemp Centers
$\frac{3}{16}$ "	6	19	7
$\frac{1}{4}$ "	6	42	7
$\frac{5}{16}$ "	6	42	7
$\frac{3}{8}$ "	6	42	7

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Products



MISCELLANEOUS ITEMS

***STARRED ITEMS READY TO SHIP FROM MILWAUKEE WAREHOUSE STOCKS**
Remaining Sizes Can Be Shipped From Our Other Warehouses

ALUMINUM FLAT HALF HARD SHEETS

No. 2-S 4

Size of Sheet	Thickness in Inches, B. & S. Gage and Decimal Equivalent	Approximate Total Weight of Sheet	Size of Sheet	Thickness in B. & S. Gage and Decimal Equivalent	Approximate Total Weight of Sheet
24" x 72"	$\frac{3}{16}$ " (.1875)	31.8	24" x 72"	No. 18 (.0403)	6.82
24" x 72"	$\frac{1}{4}$ " (.250)	42.24	24" x 72"	No. 20 (.0320)	5.40
24" x 72"	$\frac{5}{16}$ " (.3125)	52.92	24" x 72"	No. 22 (.0254)	4.18
24" x 72"	$\frac{3}{8}$ " (.375)	63.36	24" x 72"	No. 24 (.0201)	3.40
24" x 72"	No. 8 (.1285)	21.72	24" x 72"	No. 26 (.0159)	2.70
24" x 72"	No. 11 (.0907)	15.36	24" x 72"	No. 28 (.0126)	2.14
24" x 72"	No. 14 (.0641)	10.54	24" x 72"	No. 30 (.0100)	1.70
24" x 72"	No. 16 (.0508)	8.60			

ROUND ALUMINUM ROD

Lengths of 12 Random Feet

Diameter	Pounds per Foot	Diameter	Pounds per Foot	Diameter	Pounds per Foot
$\frac{1}{8}$ "	.0143	$\frac{7}{16}$ "	.177	$1\frac{1}{8}$ "	1.17
$\frac{1}{4}$ "	.0577	$\frac{1}{2}$ "	.231	$1\frac{1}{4}$ "	1.44
$\frac{5}{16}$ "	.0897	$\frac{9}{16}$ "	.292	$1\frac{3}{8}$ "	1.74
$\frac{3}{8}$ "	.130	$1\frac{1}{16}$ "	.436		

GREY FLAT ALUMINUM SHEET

No. 3-S Half Hard

36" x 96" x .051" Thick	48" x 144" x .051" Thick	48" x 144" x .064" Thick
36" x 144" x .051" Thick	36" x 144" x .064" Thick	72" x 132" x No. 10 B. & S.

ZINC SHEETS

Size of Sheet	Thickness in Zinc Gage	Size of Sheet	Thickness in Zinc Gage	Size of Sheet	Thickness in Zinc Gage
36" x 84"	No. 7	48" x 96"	No. 9	48" x 96"	No. 11
36" x 84"	No. 8	34" x 84"	No. 10	36" x 84"	No. 12
30" x 84"	No. 9	48" x 96"	No. 10	48" x 96"	No. 12
34" x 84"	No. 9	34" x 84"	No. 11	36" x 84"	No. 14
36" x 84"	No. 9	36" x 84"	No. 11		

ZINC PLATES

6" Wide, 12" Long, $\frac{1}{2}$ " Thick

6" Wide, 12" Long, 1" Thick

6" Wide, 36" Long, $\frac{1}{2}$ " Thick



WEIGHTS PER LINEAL FOOT

BRASS AND COPPER SHEET AND STRIP

Thickness		Width in Inches—Pounds Per Lineal Foot									
B. & S. Gage	Decimal	1/16"		3/32"		1/8"		5/32"		3/16"	
		Brass	Copper	Brass	Copper	Brass	Copper	Brass	Copper	Brass	Copper
1	.2893	.0665	.0700	.0998	.1050	.1331	.1400	.1664	.1751	.1996	.2100
2	.2576	.0594	.0625	.0891	.0938	.1188	.1250	.1485	.1563	.1782	.1875
3	.2294	.0527	.0555	.0791	.0832	.1055	.1110	.1318	.1387	.1582	.1664
4	.2043	.0470	.0494	.0705	.0741	.0939	.0988	.1174	.1236	.1409	.1483
5	.1819	.0419	.0441	.0629	.0661	.0838	.0882	.1048	.1102	.1257	.1323
6	.1620	.0373	.0392	.0560	.0589	.0746	.0785	.0933	.0981	.1119	.1177
7	.1443	.0332	.0349	.0497	.0523	.0663	.0698	.0829	.0872	.0995	.1047
8	.1285	.02947	.0305	.0442	.0458	.0589	.0611	.0737	.0763	.0884	.0916
9	.1144	.02625	.02761	.0394	.0414	.0525	.0552	.0656	.0691	.0787	.0829
10	.1019	.02349	.02473	.0352	.0371	.0470	.0494	.0587	.0618	.0705	.0741
11	.0907	.02100	.02196	.0314	.0331	.0419	.0441	.0524	.0551	.0629	.0661
12	.0808	.01865	.01960	.02798	.02942	.0373	.0392	.0466	.0491	.0560	.0589
13	.0720	.01658	.01738	.02487	.02619	.0332	.0349	.0414	.0436	.0497	.0523
14	.0641	.01474	.01553	.02210	.02328	.02947	.0310	.0368	.0388	.0442	.0465
15	.0571	.01312	.01382	.01969	.02065	.02625	.02761	.0328	.0345	.0394	.0414
16	.0508	.01174	.01240	.01761	.01851	.02349	.02468	.02936	.0309	.0352	.0371
17	.0453	.01036	.01088	.01554	.01643	.02072	.02176	.02590	.02726	.0311	.0327
18	.0403	.00928	.00976	.01392	.01460	.01856	.01948	.02320	.02441	.02784	.02929
19	.0359	.00827	.00870	.01240	.01297	.01653	.01738	.02066	.02174	.02480	.02609
20	.0320	.00737	.00775	.01105	.01162	.01474	.01554	.01842	.01938	.02210	.02326
21	.0285	.00656	.00690	.00984	.01043	.01312	.01384	.01641	.01726	.01969	.02071
22	.0254	.00583	.00613	.00874	.00919	.01165	.01232	.01456	.01532	.01748	.01839
23	.0226	.00520	.00547	.00781	.00821	.01041	.01098	.01301	.01369	.01561	.01642
24	.0201	.00463	.00487	.00694	.00730	.00926	.00974	.01157	.01217	.01388	.01461
25	.0179	.00412	.00434	.00618	.00650	.00824	.00867	.01030	.01084	.01236	.01301
26	.0159	.00366	.00385	.00549	.00578	.00732	.00770	.00915	.00963	.01098	.01156
27	.0142	.00327	.00344	.00490	.00516	.00654	.00688	.00817	.00860	.00981	.01032
28	.0126	.002898	.00305	.00435	.00458	.00580	.00610	.00725	.00763	.00870	.00916
29	.0113	.002596	.002741	.00390	.00411	.00520	.00547	.00650	.00684	.00781	.00821
30	.0100	.002303	.002424	.00345	.00364	.00461	.00485	.00576	.00606	.00691	.00727
31	.0089	.002049	.002157	.00307	.00323	.00410	.00431	.00512	.00539	.00615	.00647
32	.0080	.001842	.001941	.002763	.002911	.00368	.00388	.00461	.00485	.00553	.00581
33	.0071	.001635	.001719	.002452	.002584	.00327	.00344	.00409	.00430	.00490	.00516
34	.0063	.001451	.001526	.002176	.002291	.002901	.00305	.00363	.00382	.00435	.00458
35	.0056	.001289	.001358	.001934	.002028	.002579	.002712	.00322	.00339	.00387	.00407
36	.0050	.001151	.001211	.001727	.001819	.002303	.002419	.002879	.00303	.00345	.00363
37	.0045	.001036	.001090	.001554	.001635	.002072	.002180	.002590	.002725	.00311	.00327
38	.0040	.000921	.000969	.001382	.001454	.001842	.001938	.002303	.002423	.002763	.002907
39	.0035	.000806	.000848	.001209	.001272	.001612	.001696	.002015	.002120	.002418	.002544
40	.0031	.000714	.000751	.001071	.001126	.001428	.001502	.001784	.001877	.002141	.002253

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Tables



WEIGHTS PER LINEAL FOOT

BRASS AND COPPER SHEET AND STRIP

Thickness		Width in Inches—Pounds Per Lineal Foot									
B. & S. Gage	Decimal	$\frac{7}{32}$ "		$\frac{1}{4}$ "		$\frac{5}{16}$ "		$\frac{3}{8}$ "		$\frac{1}{2}$ "	
		Brass	Copper	Brass	Copper	Brass	Copper	Brass	Copper	Brass	Copper
1	.2893	.2329	.2450	.2662	.2800	.333	.350	.399	.420	.532	.560
2	.2576	.2079	.2188	.2376	.2500	.2970	.313	.356	.375	.475	.500
3	.2294	.1845	.1942	.2109	.2219	.2636	.2774	.316	.333	.422	.444
4	.2043	.1644	.1730	.1879	.1977	.2349	.2471	.2818	.297	.376	.395
5	.1819	.1467	.1543	.1676	.1764	.2095	.2205	.2514	.265	.335	.353
6	.1620	.1306	.1374	.1492	.1570	.1865	.1962	.2238	.235	.2984	.314
7	.1443	.1160	.1221	.1326	.1395	.1658	.1744	.1989	.209	.2652	.2791
8	.1285	.1032	.1068	.1179	.1221	.1474	.1526	.1768	.1831	.2358	.2442
9	.1244	.0919	.0967	.1050	.1105	.1312	.1381	.1575	.1657	.2100	.2209
10	.1019	.0822	.0865	.0939	.0988	.1174	.1236	.1409	.1483	.1879	.1977
11	.0907	.0733	.0772	.0838	.0882	.1048	.1102	.1257	.1323	.1676	.1764
12	.0808	.0653	.0687	.0746	.0785	.0933	.0981	.1119	.1177	.1492	.1570
13	.0720	.0580	.0611	.0663	.0698	.0829	.0872	.0995	.1047	.1326	.1395
14	.0641	.0516	.0543	.0589	.0620	.0737	.0775	.0884	.0930	.1179	.1240
15	.0571	.0459	.0483	.0525	.0552	.0656	.0690	.0787	.0829	.1050	.1105
16	.0508	.0411	.0432	.0470	.0494	.0587	.0618	.0705	.0741	.0939	.0988
17	.0453	.0363	.0382	.0415	.0436	.0518	.0545	.0622	.0654	.0829	.0872
18	.0403	.0325	.0342	.0371	.0391	.0464	.0488	.0557	.0586	.0742	.0781
19	.0359	.02893	.0304	.0331	.0348	.0413	.0435	.0496	.0522	.0661	.0696
20	.0320	.02579	.02713	.02947	.0310	.0368	.0388	.0442	.0465	.0589	.0620
21	.0285	.02297	.02416	.02625	.02762	.0328	.0345	.0394	.0414	.0525	.0552
22	.0254	.02039	.02145	.02330	.02452	.02913	.0306	.0350	.0368	.0466	.0490
23	.0226	.01821	.01916	.02081	.02190	.02602	.02737	.0312	.0329	.0416	.0438
24	.0201	.01620	.01704	.01851	.01948	.02314	.02435	.02777	.02922	.0370	.0390
25	.0179	.01443	.01518	.01649	.01735	.02061	.02168	.02473	.02602	.0330	.0347
26	.0159	.01281	.01348	.01464	.01541	.01830	.01926	.02197	.02311	.02929	.0308
27	.0142	.01144	.01204	.01308	.01376	.01635	.01720	.01962	.02064	.02616	.2752
28	.0126	.01015	.01068	.01160	.01221	.01451	.01526	.01741	.01831	.02321	.02442
29	.0113	.00911	.00958	.01041	.01095	.01301	.01369	.01561	.01642	.02081	.02190
30	.0100	.00806	.00848	.00921	.00969	.01153	.01211	.01381	.01454	.01842	.01938
31	.0089	.00717	.00755	.00820	.00862	.01025	.01078	.01230	.01294	.01639	.01725
32	.0080	.00644	.00678	.00737	.00775	.00921	.00969	.01105	.01163	.01474	.01550
33	.0071	.00572	.00602	.00654	.00688	.00817	.00860	.00981	.01032	.01308	.01371
34	.0063	.00508	.00534	.00580	.00610	.00725	.00763	.00870	.00916	.01160	.01221
35	.0056	.00451	.00475	.00516	.00543	.00645	.00678	.00774	.00814	.01032	.01085
36	.0050	.00403	.00424	.00461	.00485	.00576	.00606	.00691	.00727	.00921	.00969
37	.0045	.00363	.00382	.00415	.00436	.00518	.00545	.00622	.00654	.00829	.00872
38	.0040	.00322	.00339	.00368	.00388	.00461	.00485	.00553	.00581	.00737	.00775
39	.0035	.002821	.002968	.00322	.00339	.00403	.00424	.00484	.00509	.00645	.00678
40	.0031	.002498	.002628	.002855	.00300	.00357	.00375	.00428	.00451	.00571	.00601



WEIGHTS PER LINEAL FOOT

BRASS AND COPPER SHEET AND STRIP

Thickness		Width in Inches—Pounds Per Lineal Ft.									
B. & S. Gage	Decimal	$\frac{5}{8}$ "		$\frac{3}{4}$ "		1"		2"		3"	
		Brass	Copper	Brass	Copper	Brass	Copper	Brass	Copper	Brass	Copper
1	.2893	.665	.700	.799	.840	1.065	1.120	2.129	2.240	3.19	3.36
2	.2576	.594	.625	.713	.750	.950	1.100	1.901	2.000	2.851	3.00
3	.2294	.527	.555	.633	.666	.885	.888	1.770	1.775	2.655	2.663
4	.2043	.470	.494	.564	.593	.788	.791	1.577	1.581	2.365	2.372
5	.1819	.419	.441	.503	.529	.670	.705	1.353	1.411	2.029	2.116
6	.1620	.373	.392	.448	.471	.597	.628	1.194	1.256	1.790	1.884
7	.1443	.332	.349	.398	.419	.530	.558	1.061	1.116	1.591	1.674
8	.1285	.2947	.305	.354	.366	.472	.488	.943	.977	1.415	1.465
9	.1144	.2625	.2762	.315	.331	.420	.442	.840	.884	1.260	1.326
10	.1019	.2349	.2471	.2818	.2965	.376	.395	.752	.791	1.127	1.186
11	.0907	.2095	.2204	.2514	.2645	.335	.353	.670	.705	1.005	1.058
12	.0808	.1865	.1962	.2238	.2355	.2984	.314	.597	.628	.895	.942
13	.0720	.1658	.1744	.1989	.2093	.2652	.2791	.530	.558	.796	.837
14	.0641	.1474	.1549	.1768	.1861	.2358	.2481	.472	.496	.707	.744
15	.0571	.1312	.1378	.1575	.1657	.2100	.2209	.420	.442	.630	.663
16	.0508	.1174	.1235	.1409	.1483	.1879	.1977	.376	.395	.564	.593
17	.0453	.1036	.1090	.1243	.1308	.1658	.1744	.332	.349	.497	.523
18	.0403	.0928	.0976	.1113	.1172	.1485	.1562	.2969	.312	.445	.469
19	.0359	.0827	.0870	.0992	.1044	.1323	.1392	.2645	.2783	.397	.418
20	.0320	.0737	.0775	.0884	.0930	.1179	.1240	.2358	.2481	.354	.372
21	.0285	.0656	.0690	.0787	.0829	.1050	.1105	.2100	.2209	.315	.331
22	.0254	.0583	.0613	.0699	.0735	.0932	.0981	.1864	.1961	.2796	.2942
23	.0226	.0520	.0547	.0624	.0657	.0833	.0876	.1665	.1752	.2498	.2628
24	.0201	.0463	.0487	.0555	.0584	.0740	.0779	.1481	.1558	.2221	.2337
25	.0179	.0412	.0434	.0495	.0520	.0659	.0694	.1319	.1388	.1978	.2081
26	.0159	.0366	.0385	.0439	.0462	.0586	.0616	.1172	.1233	.1757	.1849
27	.0142	.0327	.0344	.0392	.0413	.0513	.0550	.1026	.1101	.1540	.1651
28	.0126	.02901	.0305	.0348	.0366	.0464	.0488	.0928	.0977	.1393	.1465
29	.0113	.02602	.02739	.0312	.0329	.0416	.0438	.0833	.0876	.1249	.1314
30	.0100	.02303	.02421	.02763	.02911	.0368	.0388	.0737	.0775	.1105	.1163
31	.0089	.02049	.02162	.02459	.02590	.0328	.0345	.0656	.0690	.0984	.1035
32	.0080	.01842	.01938	.02210	.02329	.02947	.0310	.0589	.0620	.0884	.0930
33	.0071	.01635	.01721	.01962	.02058	.02616	.02751	.0523	.0550	.0785	.0826
34	.0063	.01451	.01530	.01741	.01827	.02321	.02444	.0464	.0488	.0696	.0733
35	.0056	.01290	.01362	.01547	.01634	.02063	.02168	.0413	.0434	.0619	.0651
36	.0050	.01151	.01212	.01382	.01539	.01842	.01942	.0368	.0388	.0553	.0581
37	.0045	.01036	.01090	.01243	.01308	.01658	.01744	.0332	.0349	.0497	.0523
38	.0040	.00921	.00969	.01105	.01163	.01474	.01550	.02947	.0310	.0442	.0465
39	.0035	.00806	.00848	.00967	.01017	.01289	.01357	.02579	.02713	.0387	.0407
40	.0031	.00714	.00751	.00857	.00901	.01142	.01202	.02284	.02403	.0343	.0360



WEIGHTS PER LINEAL FOOT

BRASS AND COPPER SHEET AND STRIP

Thickness		Width in Inches—Pounds Per Lineal Ft.									
B. & S. Gage	Decimal	4"		5"		6"		7"		8"	
		Brass	Copper	Brass	Copper	Brass	Copper	Brass	Copper	Brass	Copper
1	.289	4.26	4.48	5.32	5.60	6.39	6.72	7.45	7.84	8.52	8.96
2	.258	3.80	4.00	4.75	5.00	5.70	6.00	6.65	7.00	7.60	8.00
3	.229	3.54	3.55	4.42	4.44	5.31	5.33	6.19	6.21	7.08	7.10
4	.204	3.15	3.16	3.94	3.95	4.73	4.74	5.52	5.54	6.31	6.33
5	.182	2.712	2.822	3.38	3.53	4.06	4.23	4.74	4.94	5.41	5.64
6	.162	2.387	2.512	2.984	3.14	3.58	3.77	4.18	4.40	4.77	5.02
7	.144	2.122	2.233	2.652	2.791	3.18	3.35	3.71	3.91	4.24	4.47
8	.128	1.886	1.954	2.358	2.442	2.829	2.930	3.30	3.42	3.77	3.91
9	.114	1.680	1.768	2.100	2.209	2.520	2.651	2.940	3.09	3.56	3.54
10	.102	1.503	1.581	1.879	1.977	2.255	2.372	2.630	2.768	3.01	3.16
11	.091	1.341	1.411	1.676	1.764	2.011	2.116	2.347	2.469	2.682	2.822
12	.081	1.194	1.256	1.492	1.570	1.790	1.884	2.089	2.198	2.387	2.512
13	.072	1.061	1.116	1.326	1.395	1.591	1.674	1.857	1.954	2.122	2.233
14	.064	.943	.992	1.179	1.240	1.415	1.488	1.650	1.736	1.886	1.985
15	.057	.840	.884	1.050	1.105	1.260	1.326	1.470	1.547	1.680	1.767
16	.051	.752	.791	.939	.988	1.127	1.186	1.315	1.384	1.503	1.581
17	.045	.663	.698	.829	.872	.995	1.047	1.160	1.221	1.326	1.395
18	.0403	.594	.625	.742	.781	.891	.937	1.039	1.093	1.188	1.250
19	.0359	.529	.557	.661	.696	.794	.835	.926	.974	1.058	1.113
20	.032	.472	.496	.589	.620	.707	.744	.825	.868	.943	.992
21	.0285	.420	.442	.525	.552	.630	.663	.735	.773	.840	.884
22	.0253	.373	.392	.466	.490	.559	.588	.652	.686	.746	.785
23	.0226	.333	.350	.416	.438	.500	.526	.583	.613	.666	.701
24	.0201	.2962	.312	.370	.390	.444	.468	.518	.545	.592	.623
25	.0179	.2638	.2775	.330	.347	.396	.416	.462	.486	.528	.555
26	.0159	.2343	.2465	.2929	.308	.351	.370	.410	.431	.469	.493
27	.0142	.2053	.2202	.2566	.2752	.308	.330	.359	.385	.411	.440
28	.0126	.1857	.1954	.2321	.2442	.2785	.2930	.325	.342	.371	.391
29	.0113	.1665	.1752	.2081	.2190	.2498	.2628	.2914	.307	.333	.350
30	.0100	.1474	.1550	.1842	.1938	.2210	.2326	.2579	.2713	.2947	.310
31	.0089	.1312	.1380	.1639	.1725	.1967	.2070	.2295	.2415	.2623	.2760
32	.0080	.1179	.1240	.1474	.1550	.1768	.1861	.2063	.2171	.2358	.2481
33	.0071	.1046	.1101	.1308	.1371	.1569	.1651	.1831	.1926	.2092	.2202
34	.0063	.0928	.0977	.1160	.1221	.1393	.1465	.1625	.1709	.1857	.1954
35	.0056	.0825	.0868	.1032	.1085	.1238	.1302	.1444	.1519	.1650	.1737
36	.0050	.0737	.0775	.0921	.0969	.1105	.1163	.1289	.1357	.1474	.1550
37	.0045	.0663	.0698	.0829	.0872	.0995	.1047	.1160	.1221	.1326	.1395
38	.0040	.0589	.0620	.0737	.0775	.0884	.930	.1032	.1085	.1179	.1240
39	.0035	.0516	.0543	.0645	.0678	.0774	.0814	.0903	.0950	.1032	.1085
40	.0031	.0457	.0481	.0571	.0601	.0685	.0721	.0799	.0841	.0914	.0961



WEIGHTS PER LINEAL FOOT

BRASS AND COPPER SHEET AND STRIP

Thickness		Width in Inches—Pounds Per Lineal Ft.							
B. & S. Gage	Decimal	9"		10"		11"		12"	
		Brass	Copper	Brass	Copper	Brass	Copper	Brass	Copper
1	.2893	9.58	10.08	10.65	11.20	11.71	12.32	12.75	13.44
2	.2576	8.55	9.00	9.50	10.00	10.45	11.00	11.35	12.00
3	.2294	7.96	7.99	8.85	8.88	9.73	9.77	10.11	10.66
4	.2043	7.09	7.12	7.88	7.91	8.67	8.69	9.003	9.48
5	.1819	6.09	6.35	6.70	7.05	7.37	7.76	8.017	8.46
6	.1620	5.37	5.65	5.97	6.28	6.564	6.91	7.139	7.54
7	.1443	4.77	5.02	5.30	5.58	5.832	6.141	6.358	6.70
8	.1285	4.24	4.40	4.72	4.88	5.187	5.372	5.662	5.860
9	.1144	3.78	3.98	4.20	4.42	4.620	4.860	5.042	5.302
10	.1019	3.38	3.56	3.76	3.95	4.134	4.349	4.490	4.744
11	.0907	3.02	3.17	3.35	3.53	3.687	3.880	3.998	4.232
12	.0808	2.686	2.826	2.984	3.14	3.282	3.454	3.561	3.768
13	.0720	2.387	2.512	2.652	2.791	2.917	3.069	3.171	3.348
14	.0641	2.122	2.233	2.358	2.481	2.594	2.728	2.824	2.976
15	.0571	1.890	1.988	2.100	2.209	2.310	2.431	2.515	2.652
16	.0508	1.691	1.779	1.879	1.977	2.066	2.174	2.239	2.372
17	.0453	1.492	1.570	1.658	1.744	1.824	1.919	1.994	2.094
18	.0403	1.336	1.406	1.485	1.562	1.633	1.718	1.776	1.874
19	.0359	1.190	1.252	1.323	1.391	1.455	1.531	1.582	1.670
20	.0320	1.061	1.116	1.179	1.240	1.296	1.364	1.408	1.488
21	.0285	.945	.994	1.050	1.105	1.155	1.215	1.254	1.326
22	.0254	.839	.883	.932	.981	1.025	1.078	1.117	1.176
23	.0226	.749	.788	.833	.876	.916	.964	.9946	1.052
24	.0201	.666	.701	.740	.779	.814	.857	.8857	.936
25	.0179	.593	.624	.659	.694	.725	.763	.7887	.832
26	.0159	.527	.555	.586	.616	.6439	.678	.7024	.740
27	.0142	.462	.495	.513	.550	.5646	.6052	.6255	.660
28	.0126	.418	.440	.464	.488	.5106	.5372	.5570	.5860
29	.0113	.375	.394	.416	.438	.4579	.4818	.4961	.5256
30	.0100	.332	.349	.368	.388	.4048	.4264	.4417	.4652
31	.0089	.2951	.311	.328	.345	.3606	.3795	.3934	.4140
32	.0080	.2652	.2791	.2947	.310	.3242	.3411	.3503	.3722
33	.0071	.2354	.2477	.2616	.2742	.2877	.3022	.3120	.3302
34	.0063	.2089	.2198	.2321	.2443	.2553	.2686	.2778	.2930
35	.0056	.1857	.1954	.2063	.2171	.2270	.2387	.2474	.2604
36	.0050	.1658	.1744	.1842	.1939	.2026	.2132	.2203	.2326
37	.0045	.1492	.1570	.1658	.1744	.1824	.1919	.1962	.2094
38	.0040	.1326	.1395	.1474	.1550	.1621	.1705	.1747	.1860
39	.0035	.1160	.1221	.1289	.1357	.1419	.1492	.1556	.1628
40	.0031	.1028	.1081	.1142	.1202	.1256	.1322	.1386	.1442

Weights of Other Alloys

Phosphor Bronze—Use figures for Copper.

Gilding Metal—Subtract $\frac{1}{2}\%$ from Copper.

Commercial Bronze—Subtract 1% from Copper.

Nickel Silver (18%)—Subtract $1\frac{1}{2}\%$ from Copper.

Muntz Metal—Subtract 1% from Brass.

Olympic Bronze—Add 1% to Brass.

By combining the various widths given, the weight of any size piece of metal can be computed.

Variations from these weights must be expected in practice.



WEIGHTS PER SQUARE FOOT SHEET COPPER

THICKNESS OF STANDARD COPPER SHEETS ROLLED TO WEIGHT

B. & S. AND STUBS GAGE

Weight per Sq. Ft.		Thickness Nearest Gage No.			Nearest Fraction Inches
Ounces	Pounds	Inches	B. & S.	Stubs	
	16	.3456	00	0	$1\frac{1}{32}$
	15	.3240	0	0	$2\frac{1}{64}+$
	14	.3024	1	1	$1\frac{9}{64}-$
	13	.2808	1	2	$\frac{3}{32}$
	12	.2592	2	3	$\frac{1}{4}-$
	11	.2376	3	4	$1\frac{5}{64}-$
	10	.2160	4	5	$\frac{7}{32}+$
	9½	.2052	4	6	$1\frac{3}{64}$
	9	.1944	4	6	
	8½	.1836	5	7	$\frac{3}{16}+$
	8	.1728	5	7	$1\frac{1}{64}$
	7½	.1620	6	8	
	7	.1512	7	9	$\frac{5}{32}+$
	6½	.1404	7	10	$\frac{9}{64}$
	6	.1296	8	10	$\frac{1}{8}-$
88	5½	.1188	9	11	
80	5	.1080	10	12	$\frac{7}{64}+$
72	4½	.0972	10	13	$\frac{3}{32}-$
64	4	.0864	11	14	
56	3½	.0756	13	15	$\frac{5}{64}+$
48	3	.0648	14	(16)	$\frac{1}{16}-$
44	2¾	.0594	15	17	
40	2½	.0540	15	17	
36	2¼	.0486	16	18	$\frac{3}{64}-$
32	2	.0432	17	19	
28	1¾	.0378	19	20	
24	1½	.0324	20	21	$\frac{1}{32}-$
20	1¼	.0270	21	22	
18	1⅛	.0243	22	23	
16	1	.0216	23	24	
15	$1\frac{15}{16}$	.0202	24	25	
14	$\frac{7}{8}$	.0189	25	26	
13	$\frac{13}{16}$	.0173	25	26	
12	$\frac{3}{4}$	.0162	26	27	$\frac{1}{64}-$
11	$\frac{11}{16}$	.0146	27	28	
10	$\frac{5}{8}$	.0135	27	29	
9	$\frac{9}{16}$	.0120	28	30	
8	$\frac{1}{2}$	.0108	29	31	
7	$\frac{7}{16}$	.0093	31	32	
6	$\frac{3}{8}$	.0081	32	33	
4	$\frac{1}{4}$	.0054	35	35	
2	$\frac{1}{8}$	.0027			

Brown & Sharpe's Gage			Stubs Gage			Inches and Fractions	
No.	Decimal Equivalent	Pounds per Sq. Ft.	No.	Decimal Equivalent	Pounds per Sq. Ft.	Thickness	Pounds per Sq. Ft.
4/0	.4600	21.30	4/0	.454	21.02	$\frac{1}{16}$	2.894
3/0	.4096	18.97	3/0	.425	19.68	$\frac{1}{8}$	5.788
2/0	.3648	16.89	2/0	.380	17.59	$\frac{3}{16}$	8.681
0	.3249	15.04	0	.340	15.74	$\frac{1}{4}$	11.58
1	.2893	13.39	1	.300	13.89	$\frac{5}{16}$	14.47
2	.2576	11.93	2	.284	13.15	$\frac{3}{8}$	17.36
3	.2294	10.62	3	.259	11.99	$\frac{7}{16}$	20.25
4	.2043	9.460	4	.238	11.02	$\frac{1}{2}$	23.15
5	.1819	8.424	5	.220	10.19	$\frac{9}{16}$	26.04
6	.1620	7.502	6	.203	9.399	$\frac{5}{8}$	28.94
7	.1443	6.681	7	.180	8.334	$1\frac{1}{16}$	31.83
8	.1285	5.949	8	.165	7.639	$\frac{3}{4}$	34.73
9	.1144	5.298	9	.148	6.852	$1\frac{3}{16}$	37.62
10	.1019	4.718	10	.134	6.204	$\frac{7}{8}$	40.51
11	.0907	4.201	11	.120	5.556	$1\frac{5}{16}$	43.41
12	.0808	3.741	12	.109	5.047	1	46.30
13	.0720	3.332	13	.095	4.399	$1\frac{1}{8}$	49.19
14	.0641	2.967	14	.083	3.843	$1\frac{1}{4}$	52.09
15	.0571	2.642	15	.072	3.334	$1\frac{3}{8}$	54.98
16	.0508	2.353	16	.065	3.009	$1\frac{1}{2}$	57.88
17	.0453	2.096	17	.058	2.685	$1\frac{5}{8}$	60.77
18	.0403	1.866	18	.049	2.269	$1\frac{3}{4}$	63.66
19	.0359	1.662	19	.042	1.945	$1\frac{7}{8}$	66.56
20	.0320	1.480	20	.035	1.621	$1\frac{1}{2}$	69.45
21	.0285	1.318	21	.032	1.482	$1\frac{9}{16}$	72.35
22	.0254	1.174	22	.028	1.296	$1\frac{5}{8}$	75.24
23	.0226	1.045	23	.025	1.158	$1\frac{11}{16}$	78.13
24	.0201	.9307	24	.022	1.019	$1\frac{3}{4}$	81.03
25	.0179	.8288	25	.020	.9260	$1\frac{13}{16}$	83.92
26	.0159	.7381	26	.018	.8334	$1\frac{7}{8}$	86.81
27	.0142	.6573	27	.016	.7408	$1\frac{15}{16}$	89.71
28	.0126	.5853	28	.014	.6482	2	92.60
29	.0113	.5212	29	.013	.6019		
30	.0100	.4642	30	.012	.5556		
31	.0089	.4134	31	.010	.4630		
32	.0080	.3681	32	.009	.4167		
33	.0071	.3278	33	.008	.3704		
34	.0063	.2919	34	.007	.3241		
35	.0056	.2600	35	.005	.2315		
36	.0050	.2315	36	.004	.1852		
37	.0045	.2062					
38	.0040	.1836					
39	.0035	.1635					
40	.0031	.1456					

The + sign shows that the size is more than 1 per cent full.
The - sign shows that the size is more than 1 per cent scant.



NET WEIGHT PER SHEET

SHEET COPPER

Approximate Total Pounds Per Sheet

Size of Sheet in Inches	Weight in Ounces to Sq. Ft.	Decimal Equivalent	Approx. Total Weight of Sheet	Size of Sheet in Inches	Weight in Ounces to Sq. Ft.	Decimal Equivalent	Approx. Total Weight of Sheet
10 x 120	16	.0216	8.33	36 x 96	14	.0189	21.0
12 x 96	16	.0216	8.00	36 x 96	16	.0216	24.0
13 x 96	16	.0216	8.67	36 x 96	18	.0243	27.0
14 x 48	12	.0162	3.50	36 x 96	20	.0270	30.0
14 x 48	14	.0189	4.08	36 x 96	24	.0324	36.0
14 x 48	16	.0216	4.67	36 x 96	28	.0378	42.0
14 x 48	18	.0243	5.25	36 x 96	32	.0432	48.0
20 x 96	14	.0189	11.67	36 x 120	16	.0216	30.0
20 x 96	16	.0216	13.33	48 x 72	24	.0324	36.0
24 x 48	12	.0162	6.00	48 x 72	28	.0378	42.0
24 x 48	14	.0189	7.00	48 x 72	32	.0432	48.0
24 x 48	16	.0216	8.00	48 x 72	40	.0540	60.0
24 x 48	18	.0243	9.00	48 x 72	48	.0648	72.0
24 x 60	16	.0216	10.00	48 x 72	56	.0756	84.0
24 x 96	14	.0189	14.00	48 x 72	64	.0864	96.0
24 x 96	16	.0216	16.00	48 x 72	72	.0972	108.0
24 x 96	18	.0243	18.00	48 x 72	80	.1080	120.0
26 x 96	14	.0189	15.17	48 x 72	88	.1188	132.0
26 x 96	16	.0216	17.33	48 x 72	96	.1296	144.0
28 x 96	14	.0189	16.33	48 x 72	112	.1512	168.0
28 x 96	16	.0216	18.67	48 x 72	120	.1620	180.0
30 x 60	10	.0135	7.81	48 x 72	128	.1728	192.0
30 x 60	12	.0162	9.38	48 x 72	144	.1944	216.0
30 x 60	14	.0189	10.94	48 x 72	192	.2592	288.0
30 x 60	16	.0216	12.50	48 x 120	32	.0432	80.0
30 x 60	18	.0243	14.06	48 x 120	40	.0540	100.0
30 x 60	20	.0270	15.63	48 x 120	48	.0648	120.0
30 x 60	24	.0324	18.75	60 x 120	24	.0324	75.0
30 x 96	14	.0189	17.50	60 x 120	32	.0432	100.0
30 x 96	16	.0216	20.00	60 x 120	48	.0648	150.0
30 x 96	18	.0243	22.50	60 x 120	56	.0756	175.0
30 x 96	20	.0270	25.00	60 x 120	64	.0864	200.0
30 x 96	24	.0324	30.00	60 x 120	72	.0972	225.0
30 x 96	28	.0378	35.00	60 x 120	80	.1080	250.0
30 x 96	32	.0432	40.00	60 x 120	96	.1296	300.0
30 x 120	16	.0216	25.00	72 x 120	48	.0648	180.0
36 x 72	14	.0189	15.75	72 x 120	64	.0864	240.0
36 x 72	16	.0216	18.0	72 x 120	80	.1080	300.0
36 x 72	24	.0324	27.0	72 x 120	96	.1296	360.0
36 x 72	48	.0648	54.0	72 x 144	64	.0864	288.0
36 x 72	64	.0864	72.0	72 x 144	80	.1080	360.0
36 x 72	96	.1296	108.0	72 x 144	96	.1296	432.0



WEIGHTS OF BRASS, COPPER AND CHAMET BRONZE RODS

Sizes $\frac{1}{32}$ " to $1\frac{1}{8}$ "

In Pounds per Lineal Foot

Diameter In Inches		BRASS			COPPER			CHAMET BRONZE		
		Round	Square	Hex.	Round	Square	Hex.	Round	Square	Hex.
$\frac{1}{32}$ "	.0312	.002823	.....	.....	.002961	.....	.....	.002789	.....	.....
$\frac{1}{16}$ "	.0625	.01132	.01441	.1248	.01184	.01507	.01305	.01118	.01423	.01233
$\frac{3}{32}$ "	.0937	.02544	.....	.....	.02660	.....	.....	.02513	.....	.....
$\frac{1}{8}$ "	.125	.0453	.0576	.0499	.0474	.0603	.0522	.0447	.0569	.0493
$\frac{5}{32}$ "	.1562	.0707	.....	.....	.0740	.....	.....	.0698	.....	.....
$\frac{3}{16}$ "	.1875	.1019	.1297	.1123	.1065	.1356	.1175	.1006	.1281	.1109
$\frac{7}{32}$ "	.2187	.1386	.....	.....	.1450	.....	.....	.1369	.....	.....
$\frac{1}{4}$ "	.250	.1811	.2305	.1997	.1894	.241	.209	.1789	.228	.1972
$\frac{9}{32}$ "	.2812	.2291	.....	.....	.2396	.....	.....	.2263	.....	.....
$\frac{5}{16}$ "	.3125	.283	.360	.312	.2961	.377	.326	.2796	.356	.308
$\frac{11}{32}$ "	.3437	.342	.....	.....	.358	.....	.....	.338	.....	.....
$\frac{3}{8}$ "	.375	.407	.518	.449	.426	.542	.470	.402	.512	.444
$\frac{13}{32}$ "	.4062	.478	.....	.....	.500	.....	.....	.472	.....	.....
$\frac{7}{16}$ "	.4375	.555	.706	.612	.580	.738	.640	.548	.696	.604
$\frac{15}{32}$ "	.4687	.637	.....	.....	.666	.....	.....	.629	.....	.....
$\frac{1}{2}$ "	.500	.724	.992	.798	.757	.964	.835	.715	.910	.788
$\frac{17}{32}$ "	.5318	.818	.....	.....	.856	.....	.....	.808	.....	.....
$\frac{9}{16}$ "	.5625	.917	1.167	1.011	.959	1.221	1.057	.906	1.153	.999
$\frac{19}{32}$ "	.5937	1.021	.....	.....	1.068	.....	.....	1.009	.....	.....
$\frac{5}{8}$ "	.625	1.132	1.441	1.248	1.184	1.507	1.305	1.118	1.423	1.233
$\frac{21}{32}$ "	.6562	1.248	.....	.....	1.305	.....	.....	1.233	.....	.....
$\frac{11}{16}$ "	.6875	1.369	1.743	1.510	1.432	1.823	1.579	1.353	1.722	1.492
$\frac{23}{32}$ "	.7187	1.497	.....	.....	1.566	.....	.....	1.479	.....	.....
$\frac{3}{4}$ "	.750	1.630	2.08	1.797	1.705	2.171	1.880	1.610	2.05	1.775
$\frac{25}{32}$ "	.7812	1.768	.....	.....	1.849	.....	.....	1.747	.....	.....
$\frac{13}{16}$ "	.8125	1.913	2.435	2.109	2.001	2.547	2.206	1.890	2.406	2.084
$\frac{27}{32}$ "	.8437	2.063	.....	.....	2.157	.....	.....	2.038	.....	.....
$\frac{7}{8}$ "	.875	2.218	2.824	2.446	2.320	2.951	2.558	2.191	2.789	2.416
$\frac{29}{32}$ "	.9062	2.380	.....	.....	2.489	.....	.....	2.351	.....	.....
$\frac{15}{16}$ "	.9375	2.548	3.24	2.808	2.663	3.39	2.936	2.516	3.20	2.774
$\frac{31}{32}$ "	.9687	2.719	.....	.....	2.843	.....	.....	2.686	.....	.....
1"	1.000	2.898	3.69	3.20	3.03	3.86	3.34	2.863	3.64	3.16
$1\frac{1}{16}$ "	1.0625	3.27	4.16	3.61	3.42	4.36	3.77	3.23	4.11	3.56
$1\frac{1}{8}$ "	1.125	3.67	4.67	4.04	3.84	4.89	4.23	3.63	4.62	4.00



WEIGHTS OF BRASS, COPPER AND CHAMET BRONZE RODS

Sizes $1\frac{3}{16}$ " to 6"

In Pounds Per Lineal Foot

Diameter In Inches		BRASS			COPPER			CHAMET BRONZE		
		Round	Square	Hex.	Round	Square	Hex.	Round	Square	Hex.
$1\frac{3}{16}$ "	1.1875	4.09	5.20	4.51	4.28	5.45	4.72	4.04	5.14	4.45
$1\frac{1}{4}$ "	1.250	4.53	5.76	4.99	4.74	6.03	5.22	4.48	5.70	4.94
$1\frac{5}{16}$ "	1.3125	4.99	6.35	5.50	5.22	6.65	5.76	4.93	6.28	5.44
$1\frac{3}{8}$ "	1.375	5.48	6.98	6.04	5.73	7.30	6.32	5.41	6.89	5.97
$1\frac{7}{16}$ "	1.4375	5.99	7.62	6.60	6.26	7.97	6.90	5.92	7.54	6.53
$1\frac{1}{2}$ "	1.500	6.52	8.30	7.19	6.82	8.68	7.52	6.44	8.20	7.10
$1\frac{9}{16}$ "	1.5625	7.07	9.00	7.80	7.39	9.41	8.15	6.99	8.90	7.71
$1\frac{5}{8}$ "	1.625	7.65	9.74	8.44	8.00	10.19	8.82	7.56	9.62	8.33
$1\frac{11}{16}$ "	1.6875	8.25	10.50	9.10	8.63	10.97	9.52	8.15	10.38	8.99
$1\frac{3}{4}$ "	1.750	8.87	11.29	9.78	9.28	11.82	10.23	8.76	11.15	9.66
$1\frac{13}{16}$ "	1.8125	9.52	12.12	10.50	9.96	12.68	10.98	9.40	11.97	10.37
$1\frac{7}{8}$ "	1.875	10.19	12.97	11.23	10.65	13.56	11.74	10.07	12.82	11.10
$1\frac{15}{16}$ "	1.9375	10.88	13.85	11.99	11.38	14.48	12.55	10.75	13.68	11.85
2"	2.000	11.59	14.76	12.78	12.12	15.43	13.36	11.45	14.57	12.62
$2\frac{1}{8}$ "	2.125	13.08	16.66	14.43	13.68	17.42	15.08	12.92	16.45	14.25
$2\frac{1}{4}$ "	2.250	14.67	18.68	16.17	15.34	19.53	16.91	14.49	18.44	15.98
$2\frac{3}{8}$ "	2.375	16.34	20.80	18.02	17.09	21.76	18.84	16.14	20.55	17.80
$2\frac{1}{2}$ "	2.500	18.11	23.05	19.97	18.94	24.11	20.9	17.89	22.77	19.72
$2\frac{5}{8}$ "	2.625	19.96	25.41	22.01	20.87	26.57	23.01	19.72	25.10	21.74
$2\frac{3}{4}$ "	2.750	21.91	27.89	24.16	22.91	29.16	25.26	21.65	27.56	23.87
$2\frac{7}{8}$ "	2.875	23.95	30.5	26.41	25.05	31.9	27.62	23.66	30.12	26.09
3"	3.000	26.08	33.2	28.76	27.27	34.7	30.1	25.76	32.79	28.40
$3\frac{1}{4}$ "	3.250	30.6	38.9	33.7	32.0	40.7	35.3	30.2	38.5	33.3
$3\frac{1}{2}$ "	3.500	35.5	45.2	39.1	37.1	47.2	40.9	35.1	44.7	38.7
$3\frac{3}{4}$ "	3.750	40.7	51.8	44.9	42.6	54.2	47.0	40.2	51.2	44.3
4"	4.000	46.0	58.6	51.0	48.1	61.2	53.0	45.8	58.3	50.5
$4\frac{1}{4}$ "	4.250	52.3	66.5	57.6	54.7	69.7	60.4	51.7	65.8	57.0
$4\frac{1}{2}$ "	4.500	58.7	74.7	64.7	61.4	78.2	67.7	58.0	73.8	63.9
$4\frac{3}{4}$ "	4.750	65.4	83.3	72.1	68.4	87.1	75.4	64.6	82.2	71.2
5"	5.000	72.4	92.2	79.8	75.7	96.5	83.5	71.5	91.0	78.8
$5\frac{1}{4}$ "	5.250	79.9	101.7	88.1	83.5	106.3	92.1	78.9	100.4	87.0
$5\frac{1}{2}$ "	5.500	87.6	111.5	96.6	91.6	116.6	101.0	86.6	110.2	95.5
$5\frac{3}{4}$ "	5.750	95.8	122.0	105.5	100.2	127.6	110.5	94.6	120.4	104.3
6"	6.000	104.2	132.8	115.0	109.1	138.9	120.3	103.0	131.1	113.6



WEIGHTS PER LINEAL FOOT

SEAMLESS BRASS TUBING

ROUND TUBES BY OUTSIDE DIAMETER																		
Size	Thickness of Wall by Stubs Gage and Decimal Equivalent in Inches—Pounds per Lineal Foot																	
O. D. in In.	1 .300	2 .284	3 .259	4 .238	5 .220	6 .203	7 .180	8 .165	9 .148	10 .134	11 .120	12 .109	13 .095	14 .083	15 .072	16 .065	17 .058	18 .049
1 1/8"												.181	.178	.170	.160	.148	.139	.129
1 1/4"												.334	.335	.308	.280	.252	.233	.213
1 1/2"								.401	.389	.373				.376	.340	.304	.280	.255
1 3/4"						.698	.666	.640	.603	.568	.528		.493	.445	.400	.357	.327	.297
2"														.514	.460	.409	.374	.339
2 1/8"				1.066	1.031	.991	.927	.878	.817	.761	.701	.651	.583	.520	.461	.421	.380	.327
2 1/4"				1.410	1.350	1.285	1.187	1.117	1.031	.955	.875	.808	.720	.641	.565	.515	.464	.397
2 1/2"				1.754	1.667	1.578	1.447	1.355	1.245	1.149	1.048	.966	.857	.761	.669	.609	.548	.468
2 3/4"				2.098	1.986	1.872	1.708	1.594	1.459	1.343	1.222	1.124	.995	.881	.773	.703	.632	.539
3"				2.443	2.304	2.166	1.968	1.833	1.673	1.537	1.395	1.281	1.132	1.001	.877	.797	.716	.610
3 1/8"				2.786	2.622	2.459	2.229	2.071	1.887	1.730	1.569	1.439	1.270	1.121	.981	.891	.800	.681
3 1/4"				3.131	2.941	2.753	2.489	2.310	2.102	1.924	1.743	1.597	1.407	1.241	1.086	.985	.884	.752
3 1/2"				3.475	3.258	3.046	2.749	2.549	2.315	2.118	1.916	1.754	1.544	1.361	1.190	1.079	.968	.823
3 3/4"				3.820	3.577	3.340	3.010	2.787	2.529	2.312	2.090	1.912	1.682	1.481	1.290	1.173	1.052	.893
4"			4.47	4.164	3.894	3.633	3.270	3.026	2.743	2.505	2.263	2.070	1.819	1.601	1.398	1.267	1.135	.964
4 1/8"				4.508	4.213	3.927	3.530	3.265	2.957	2.699	2.437	2.227	1.957	1.721	1.503	1.361	1.219	1.035
4 1/4"			5.22	4.852	4.531	4.221	3.790	3.503	3.171	2.893	2.610	2.385	2.094	1.841	1.606	1.455	1.303	1.106
4 1/2"				5.97	5.540	5.167	4.808	4.311	3.980	3.599	3.281	2.957	2.700	2.369	2.081	1.814	1.643	1.471
4 3/4"				6.72	6.229	5.804	5.395	4.832	4.458	4.027	3.668	3.304	3.015	2.643	2.321	2.023	1.831	1.639
5"	9.38	8.93	8.21	7.606	7.076	6.569	5.873	5.412	4.884	4.443	3.999	3.646	3.193	2.801	2.439	2.207	1.974	1.673
5 1/8"	10.24	9.76	8.96	8.294	7.713	7.156	6.394	5.889	5.312	4.831	4.346	3.961	3.468	3.041	2.647	2.393	2.142	1.815
5 1/4"	11.12	10.58	9.71	8.982	8.349	7.744	6.914	6.367	5.740	5.219	4.693	4.276	3.743	3.281	2.856	2.583	2.310	1.956
5 1/2"	11.98	11.40	10.46	9.671	8.985	8.331	7.435	6.844	6.168	5.606	5.040	4.592	4.017	3.521	3.064	2.771	2.478	2.098
5 3/4"	12.85	12.23	11.21	10.36	9.622	8.918	7.956	7.321	6.596	5.994	5.387	4.907	4.292	3.762	3.272	2.959	2.645	2.240
6"	13.72	13.04	11.96	11.05	10.26	9.505	8.476	7.798	7.024	6.381	5.734	5.222	4.567	4.002	3.480	3.147	2.813	2.382
6 1/8"	14.59	13.87	12.71	11.74	10.89	10.09	8.997	8.276	7.452	6.769	6.081	5.538	4.842	4.242	3.689	3.335	2.981	2.523
6 1/4"	15.46	14.68	13.46	12.42	11.53	10.68	9.517	8.753	7.880	7.157	6.428	5.853	5.117	4.482	3.897	3.523	3.149	2.665
6 1/2"	16.33	15.51	14.21	13.11	12.17	11.27	10.04	9.230	8.308	7.544	6.775	6.168	5.391	4.722	4.105	3.711	3.316	2.807
6 3/4"	17.20	16.34	14.96	13.80	12.80	11.85	10.56	9.708	8.736	7.932	7.122	6.483	5.666	4.962	4.313	3.899	3.484	2.949
7"	18.07	17.16	15.71	14.49	13.44	12.44	11.08	10.18	9.165	8.319	7.470	6.799	5.941	5.202	4.522	4.087	3.652	3.090
7 1/8"	18.93	17.98	16.45	15.18	14.08	13.03	11.60	10.66	9.593	8.707	7.817	7.114	6.216	5.442	4.730	4.275	3.820	3.232
7 1/4"	19.81	18.80	17.20	15.87	14.71	13.62	12.12	11.14	10.02	9.095	8.164	7.429	6.490	5.682	4.938	4.463	3.987	3.374
7 1/2"	20.67	19.62	17.95	16.55	15.35	14.20	12.64	11.62	10.45	9.482	8.511	7.745	6.765	5.922	5.147	4.651	4.155	3.516
7 3/4"	21.55	20.46	18.70	17.24	15.99	14.79	13.16	12.09	10.88	9.870	8.858	8.060	7.040	6.162	5.355	4.839	4.323	3.657
8"	22.41	21.29	19.45	17.93	16.62	15.38	13.68	12.57	11.30	10.26	9.205	8.375	7.315	6.402	5.563	5.027	4.491	3.799
8 1/8"	23.29	22.09	20.20	18.62	17.26	15.96	14.20	13.05	11.73	10.64	9.552	8.690	7.590	6.642	5.771	5.215	4.658	3.941
8 1/4"	24.15	22.19	20.95	19.31	17.89	16.55	14.72	13.53	12.16	11.03	9.899	9.006	7.864	6.883	5.980	5.403	4.826	4.082
8 1/2"	25.02	23.75	21.70	20.00	18.53	17.14	15.24	14.00	12.59	11.42	10.25	9.321	8.139	7.123	6.188	5.591	4.994	.....
8 3/4"	25.89	24.57	22.45	20.69	19.17	17.73	15.77	14.48	13.02	11.81	10.59	9.636	8.414	7.363	6.396	5.779	5.162	.....
9"	.....	.....	23.20	21.37	19.80	18.31	16.29	14.96	13.45	12.20	10.94	9.952	8.689	7.603	6.604	5.968	5.33	.....
9 1/8"	.....	.....	22.06	20.44	18.90	16.81	15.44	13.87	12.58	11.29	10.27	9.264	7.843	6.813	6.156	.....	.....	.....
9 1/4"	.....	.....	24.70	22.75	21.08	19.49	17.33	15.91	14.30	12.97	11.63	10.58	9.238	8.083	7.021	6.344	.....	.....
9 1/2"	.....	.....	23.44	21.71	20.08	17.85	16.39	14.73	13.36	11.98	10.90	9.913	8.513	7.324	6.230	5.532	.....	.....
9 3/4"	.....	.....	26.19	24.13	22.35	20.66	18.37	16.87	15.16	13.75	12.33	11.21	9.788	8.563	7.437	6.720	.....	.....
10"	.....	.....	24.82	22.99	21.25	18.89	17.34	15.59	14.14	12.68	11.53	10.06	.....	.....	.....	.....	.....	.....
10 1/8"	.....	.....	27.69	25.50	23.62	21.84	19.41	17.82	16.01	14.52	13.02	11.84	10.34	9.04	7.85	7.10	.....	.....
10 1/4"	.....	.....	26.19	24.26	22.43	19.93	18.30	16.44	14.91	13.37	12.16	10.61	.....	.....	.....	.....	.....	.....
10 1/2"	.....	.....	29.19	26.88	24.89	23.01	20.45	18.78	16.87	15.30	13.72	12.47	10.89	.....	.....	.....	.....	.....

Round Tubes—Weights by Inside Diameters

To determine the weight per foot of a tube of a given Inside Diameter—to the weight given for the size and gage by O.D. in the table above, add the weight given below for the corresponding thickness of wall by Stubs Gage. The sum will be the weight in pounds per lineal foot by inside diameter.

Thickness of Wall by Stubs Gage—Pounds to be Added to O. D. Weight

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
2.08	.187	1.55	1.31	1.12	.954	.750	.630	.507	.416	.333	.275	.209	.159	.120	.098	.078	.056

Variations from these weights must be expected in practice.

For Olympic Bronze Tube add 1% to above figures.

For Nickel Aluminum Bronze Tube subtract 1% from above figures.



WEIGHTS PER LINEAL FOOT

SEAMLESS BRASS TUBING

ROUND TUBES BY OUTSIDE DIAMETER

ROUND TUBES BY OUTSIDE DIAMETER																		
Size	Thickness of Wall by Stubs Gage and Decimal Equivalent in Inches—Pounds per Lineal Foot																	
O. D. in In.	19 .042	20 .035	21 .032	22 .028	23 .025	24 .022	25 .020	26 .018	27 .016	28 .014	29 .013	30 .012	31 .010	32 .009	33 .008	34 .007	35 .005	36 .004
1/16"					.0110	.0104	.0100	.0094	.0087	.0079	.0075	.0071	.0061	.0056	.0051	.0045	.0034	.0027
3/64"					.015	.014	.013	.012	.011	.010	.0098	.0092	.0079	.0072	.0065	.0058	.0042	.0034
1/8"					.020	.018	.017	.016	.014	.013	.012	.011	.0097	.0089	.0080	.0070	.0051	.0042
5/32"					.024	.022	.021	.019	.017	.015	.014	.013	.011	.010	.0093	.0083	.0060	.0049
3/16"	.040	.036	.034	.031	.029	.026	.024	.022	.020	.018	.017	.016	.013	.012	.0108	.0096	.0069	.0056
1/4"	.055	.049	.046	.041	.038	.034	.031	.029	.026	.023	.022	.020	.017	.015	.0137	.0121	.0087	.0070
5/16"	.071	.062	.058	.052	.047	.042	.039	.035	.032	.028	.026	.024	.021	.019	.017	.0147	.0106	.0085
3/8"	.086	.075	.069	.062	.056	.050	.046	.042	.038	.033	.031	.029	.024	.022	.020	.017	.012	.0100
7/16"	.101	.089	.081	.072	.065	.058	.053	.048	.043	.038	.036	.033	.028	.025	.022	.020	.014	.011
1/2"	.116	.100	.092	.082	.074	.066	.060	.055	.049	.043	.040	.037	.031	.028	.025	.022	.016	.0128
5/8"	.132	.113	.104	.090	.083	.074	.068	.061	.055	.048	.045	.042	.035	.032	.028	.025	.018	
3/4"	.162	.138	.127	.112	.101	.090	.082	.074	.066	.058	.054	.050	.042	.038	.034	.030	.021	
7/8"	.192	.163	.150	.133	.119	.106	.097	.087	.078	.069	.064	.059	.050	.045	.040	.035	.025	
1"	.223	.188	.173	.153	.137	.122	.111	.100	.090	.079	.073	.068	.057	.051	.046	.040	.029	
1 1/8"	.253	.214	.196	.173	.155	.138	.126	.114	.101	.089	.083	.077	.064	.058	.051	.045	.032	
1 1/4"	.283	.239	.220	.193	.174	.153	.140	.126	.113	.099	.092	.085						
1 1/2"	.344	.290	.266	.234	.210	.185	.169	.152	.136	.119	.111	.102						
1 3/4"	.405	.340	.312	.274	.246	.217	.198	.178	.159	.139	.130	.120						
2"	.466	.391	.358	.315	.282	.249	.227	.204	.182	.160	.148	.137						
2 1/8"	.526	.441	.404	.355	.318	.281	.256	.231	.205									
2 1/4"	.587	.492	.451	.396	.354	.313	.285	.257	.228									
2 1/2"	.648	.543	.497	.436	.390	.344	.313	.282	.252									
2 3/4"	.708	.593	.544	.477	.427	.376	.342	.309	.275									
3"	.769	.644	.590	.517	.463	.408	.372	.335										
3 1/8"	.830	.694	.636	.558	.499	.440	.400	.361										
3 1/4"	.891	.745	.682	.598	.535	.472	.429	.387										
3 1/2"	.951	.796	.729	.639	.571	.503	.458	.413										
3 3/4"	1.073	.897	.821	.720	.644	.567	.516											
4"	1.194	.998	.914	.801	.716	.631	.574											
4 1/8"	1.316	1.099	1.006	.882	.788													
4 1/4"	1.437	1.201	1.099	.963	.861													
4 1/2"	1.559	1.302	1.191	1.044	.933													
4 3/4"	1.680	1.403	1.284	1.125	1.005													
5"	1.802	1.504	1.377	1.206	1.077													
5 1/8"	1.923	1.606	1.469	1.287														
5 1/4"	2.045	1.707	1.562	1.368														
5 1/2"	2.166	1.808	1.654	1.449														
5 3/4"	2.288	1.909	1.747															
6"	2.409	2.011	1.839															
6 1/8"	2.531	2.112	1.932															
6 1/4"	2.652	2.213	2.024															
6 1/2"	2.774	2.314																
6 3/4"	2.895	2.416																
7"	3.017																	
7 1/8"	3.138																	
7 1/4"	3.260																	
7 1/2"	3.381																	

Round Tubes—Weights by Inside Diameters

To determine the weight per foot of a tube of a given Inside Diameter—to the weight given for the size and gage by O.D. in the table above, add the weight given below for the corresponding thickness of wall by Stubs Gage. The sum will be the weight in pounds per lineal foot by inside diameter.

Thickness of Wall by Stubs Gage—Pounds to be Added to O. D. Weight

19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
.041	.028	.024	.018	.014	.011	.009	.008	.006	.005	.004	.003	.002	.002	.001	.001	.0006	.0004

Variations from these weights must be expected in practice.

For Olympic Bronze Tube add 1% to above figures.

For Nickel Aluminum Bronze Tube subtract 1% from above figures.



WEIGHTS PER LINEAL FOOT

SEAMLESS COPPER TUBING

ROUND TUBES BY OUTSIDE DIAMETER																		
Size	Thickness of Wall by Stubs Gage and Decimal Equivalent in Inches—Pounds per Lineal Foot																	
O. D. in In.	1 .300	2 .284	3 .259	4 .238	5 .220	6 .203	7 .180	8 .165	9 .148	10 .134	11 .120	12 .109	13 .095	14 .083	15 .072	16 .065	17 .058	18 .049
1/8"																	.048	.045
5/32"																		.064
3/16"																		.083
7/32"																		.101
1/4"											.190	.187	.179	.169	.155	.146	.135	.120
9/32"																		.138
5/16"																.196	.180	.158
3/8"								.421	.408	.393	.372	.352	.324	.295	.265	.245	.224	.194
7/16"													.396	.358	.320	.295	.268	.232
1/2"						.733	.700	.672	.633	.596	.554	.518	.468	.421	.375	.344	.312	.269
9/16"														.540	.484	.430	.393	.356
5/8"				1.21	1.084	1.042	.974	.923	.859	.800	.737	.684	.613	.547	.484	.443	.400	.343
3/4"				1.482	1.418	1.351	1.248	1.174	1.084	1.004	.920	.850	.757	.673	.594	.542	.488	.418
7/8"				1.844	1.753	1.659	1.522	1.425	1.309	1.208	1.102	1.016	.901	.800	.703	.640	.576	.492
1"				2.206	2.087	1.968	1.795	1.676	1.534	1.412	1.285	1.181	1.046	.926	.813	.739	.665	.567
1 1/8"				2.568	2.422	2.277	2.069	1.927	1.759	1.615	1.467	1.347	1.190	1.052	.922	.838	.753	.641
1 1/4"				2.930	2.756	2.585	2.343	2.178	1.984	1.819	1.650	1.513	1.335	1.178	1.032	.937	.841	.716
1 1/2"				3.292	3.091	2.894	2.616	2.429	2.209	2.023	1.832	1.679	1.479	1.304	1.141	1.036	.929	.790
1 3/4"				3.654	3.426	3.203	2.890	2.680	2.434	2.227	2.015	1.844	1.624	1.431	1.251	1.135	1.017	.865
2"				4.016	3.760	3.512	3.164	2.930	2.659	2.430	2.197	2.010	1.768	1.557	1.360	1.233	1.106	.939
2 1/4"			4.70	4.378	4.095	3.820	3.438	3.181	2.884	2.634	2.380	2.176	1.913	1.683	1.470	1.332	1.194	1.014
2 1/2"				4.739	4.429	4.129	3.711	3.432	3.109	2.838	2.562	2.342	2.057	1.808	1.579	1.431	1.282	1.088
2 3/4"			5.49	5.102	4.764	4.438	3.985	3.683	3.334	3.042	2.744	2.507	2.202	1.936	1.689	1.530	1.370	1.163
3"				6.27	5.825	5.433	5.055	4.533	4.185	3.785	3.449	3.109	2.839	2.491	2.188	1.908	1.728	1.547
3 1/4"				7.06	6.549	6.102	5.672	5.080	4.687	4.235	3.857	3.474	3.170	2.779	2.440	2.127	1.925	1.723
3 1/2"				7.85	7.273	6.771	6.290	5.628	5.189	4.685	4.264	3.839	3.502	3.068	2.693	2.346	2.123	1.899
3 3/4"				8.64	7.997	7.440	6.907	6.175	5.691	5.135	4.672	4.204	3.833	3.357	2.945	2.565	2.321	2.076
4"				9.42	8.721	8.109	7.525	6.722	6.192	5.585	5.079	4.569	4.165	3.646	3.198	2.784	2.518	2.252
4 1/4"				10.21	9.444	8.778	8.142	7.270	6.694	6.035	5.487	4.934	4.496	3.935	3.450	3.003	2.716	2.429
4 1/2"				11.00	10.17	9.447	8.759	7.817	7.196	6.485	5.895	5.299	4.828	4.224	3.703	3.222	2.914	2.605
4 3/4"				11.79	10.89	10.12	9.377	8.365	7.698	6.935	6.302	5.664	5.159	4.513	3.955	3.441	3.112	2.781
5"				12.58	11.62	10.79	9.994	8.912	8.200	7.385	6.710	6.029	5.491	4.802	4.207	3.659	3.309	2.958
5 1/4"				13.36	12.34	11.45	10.61	9.460	8.701	7.836	7.117	6.394	5.822	5.091	4.460	3.878	3.507	3.134
5 1/2"				14.15	13.06	12.12	11.23	10.01	9.203	8.286	7.525	6.759	6.154	5.380	4.712	4.097	3.705	3.311
5 3/4"				14.94	13.79	12.79	11.85	10.55	9.705	8.736	7.932	7.124	6.485	5.669	4.965	4.316	3.902	3.487
6"				15.73	14.51	13.46	12.46	11.10	10.21	9.186	8.340	7.489	6.817	5.958	5.217	4.535	4.100	3.663
6 1/4"				16.51	15.24	14.13	13.08	11.65	10.71	9.636	8.747	7.854	7.148	6.247	5.470	4.754	4.298	3.840
6 1/2"				17.30	15.96	14.80	13.70	12.20	11.21	10.09	9.155	8.219	7.480	6.535	5.722	4.973	4.495	4.016
6 3/4"				18.09	16.68	15.47	14.32	12.74	11.71	10.54	9.562	8.584	7.811	6.824	5.974	5.192	4.693	4.193
7"				18.88	17.41	16.14	14.93	13.29	12.21	10.99	9.970	8.949	8.143	7.113	6.227	5.411	4.891	4.369
7 1/4"				19.67	18.13	16.81	15.55	13.84	12.72	11.44	10.38	9.314	8.474	7.402	6.479	5.63	5.088	4.545
7 1/2"				20.45	18.85	17.48	16.17	14.39	13.22	11.89	10.78	9.679	8.806	7.691	6.732	5.849	5.286	4.722
7 3/4"				21.24	19.58	18.15	16.79	14.93	13.72	12.34	11.19	10.04	9.137	7.980	6.984	6.068	5.484	4.898
8"				22.03	20.30	18.81	17.40	15.48	14.22	12.79	11.60	10.41	9.469	8.269	7.237	6.287	5.681	5.075
8 1/4"				22.82	21.03	19.48	18.02	16.03	14.72	13.24	12.01	10.77	9.800	8.558	7.489	6.506	5.879	5.251
8 1/2"				23.60	21.75	20.15	18.64	16.58	15.22	13.69	12.42	11.14	10.13	8.847	7.741	6.725	6.077	5.427
8 3/4"				24.39	22.47	20.82	19.25	17.12	15.73	14.14	12.82	11.50	10.46	9.136	7.994	6.944	6.274	5.60
9"					23.19	21.49	19.87	17.67	16.23	14.59	13.23	11.87	10.80	9.424	8.247	7.163	6.472	
9 1/4"					25.97	23.92	22.16	20.49	18.22	16.73	15.04	13.64	12.23	11.13	9.714	8.499	7.382	6.670
9 1/2"						24.64	22.83	21.11	18.76	17.23	15.49	14.04	12.60	11.46	10.00	8.751	7.601	6.867
9 3/4"						27.54	25.37	23.50	21.72	19.31	17.73	15.94	14.45	12.96	11.79	10.29	9.004	7.820
10"							26.09	24.17	22.34	19.86	18.23	16.39	14.86	13.33	12.12	10.58		
10 1/4"								29.12	26.82	24.84	22.96	20.41	18.74	16.84	15.27	13.69	12.45	
10 1/2"									27.54	25.50	23.58	20.96	19.24	17.29	15.67	14.06	12.78	
10 3/4"										30.69	28.26	26.17	24.19	21.50	19.74	17.74	16.08	

Round Tubes—Weights by Inside Diameters

To determine the weight per foot of a tube of a given Inside Diameter—to the weight given for the size and gage by O.D. in the table above, add the weight given below for the corresponding thickness of wall by Stubs Gage. The sum will be the weight in pounds per lineal foot by inside diameter.

Thickness of Wall by Stubs Gage—Pounds to be Added to O. D. Weight

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
2.19	1.96	1.63	1.38	1.18	1.00	.788	.662	.533	.437	.350	.289	.220	.168	.126	.103	.082	.058

Variations from these weights must be expected in practice.



WEIGHTS PER LINEAL FOOT

SEAMLESS COPPER TUBING

ROUND TUBES BY OUTSIDE DIAMETER																		
Size	Thickness of Wall by Stubs Gage and Decimal Equivalent in Inches—Pounds per Lineal Foot																	
O. D. in In.	19 .042	20 .035	21 .032	22 .028	23 .025	24 .022	25 .020	26 .018	27 .016	28 .014	29 .013	30 .012	31 .010	32 .009	33 .008	34 .007	35 .005	36 .004
1/16"	.....	.....	.....	.....	.0116	.011	.0105	.0099	.0092	.0084	.0079	.0075	.0065	.0059	.0054	.0048	.0035	.0029
5/64"	.....	.....	.....	.....	.016	.015	.014	.013	.012	.011	.010	.0096	.0083	.0076	.0068	.0061	.0044	.0036
3/32"	.....	.....	.....	.....	.021	.019	.018	.017	.015	.014	.013	.012	.010	.0093	.0084	.0074	.0054	.0044
7/64"	.....	.....	.....	.....	.026	.023	.022	.020	.018	.016	.015	.014	.012	.011	.0098	.0087	.0063	.0051
1/8"	.042	.038	.036	.033	.030	.028	.026	.023	.021	.019	.018	.017	.014	.013	.0114	.0101	.0073	.0059
5/32"	.058	.052	.048	.044	.040	.036	.033	.030	.027	.024	.023	.021	.018	.016	.0144	.0127	.0092	.0074
3/16"	.075	.065	.061	.055	.050	.044	.041	.037	.034	.030	.028	.026	.022	.020	.018	.0154	.0111	.0090
7/32"	.091	.078	.073	.065	.059	.053	.048	.044	.040	.035	.033	.030	.025	.023	.021	.018	.013	.0105
1/4"	.106	.092	.085	.076	.068	.061	.056	.051	.046	.040	.038	.035	.029	.026	.024	.021	.015	.012
9/32"	.122	.105	.097	.086	.078	.069	.064	.058	.052	.046	.042	.039	.033	.030	.027	.023	.017	.0135
5/16"	.139	.119	.110	.097	.088	.078	.071	.065	.058	.051	.048	.044	.037	.033	.030	.026	.019	.....
3/8"	.170	.145	.134	.118	.106	.094	.086	.078	.070	.062	.057	.053	.044	.040	.036	.031	.023	.....
7/16"	.202	.171	.158	.139	.125	.111	.102	.092	.082	.072	.067	.062	.052	.047	.042	.037	.026	.....
1/2"	.234	.198	.182	.161	.144	.128	.117	.106	.094	.083	.077	.071	.060	.054	.048	.042	.030	.....
9/16"	.266	.225	.207	.182	.163	.145	.132	.119	.107	.094	.087	.081	.067	.061	.054	.047	.034	.....
5/8"	.298	.251	.231	.203	.182	.161	.147	.133	.118	.104	.097	.090	.....	.....	.....	.....	.....	.....
3/4"	.362	.304	.280	.246	.220	.195	.178	.160	.143	.126	.117	.108	.....	.....	.....	.....	.....	.....
7/8"	.426	.358	.328	.289	.259	.228	.208	.187	.167	.147	.136	.126	.....	.....	.....	.....	.....	.....
1"	.489	.411	.377	.331	.297	.262	.238	.215	.192	.168	.156	.144	.....	.....	.....	.....	.....	.....
1 1/8"	.553	.464	.425	.374	.335	.295	.269	.242	.216	.....	.....	.....	.....	.....	.....	.....	.....	.....
1 1/4"	.617	.517	.474	.416	.373	.329	.299	.270	.240	.....	.....	.....	.....	.....	.....	.....	.....	.....
1 1/2"	.681	.570	.523	.459	.410	.362	.330	.297	.264	.....	.....	.....	.....	.....	.....	.....	.....	.....
1 3/8"	.745	.624	.571	.501	.449	.396	.360	.324	.289	.....	.....	.....	.....	.....	.....	.....	.....	.....
1 1/2"	.809	.677	.620	.544	.487	.429	.391	.352	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1 3/4"	.873	.730	.669	.587	.525	.462	.421	.379	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2"	.937	.783	.717	.629	.563	.496	.451	.407	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2 1/4"	1.000	.837	.766	.672	.601	.529	.482	.434	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2 1/2"	1.128	.943	.863	.757	.677	.596	.543	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2 3/4"	1.256	1.050	.961	.842	.753	.663	.603	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3"	1.384	1.156	1.058	.927	.829	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3 1/4"	1.511	1.262	1.155	1.012	.905	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3 1/2"	1.639	1.369	1.253	1.097	.981	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3 3/4"	1.767	1.475	1.350	1.183	1.057	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4"	1.895	1.582	1.447	1.268	1.133	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4 1/4"	2.022	1.688	1.545	1.353	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4 1/2"	2.150	1.795	1.642	1.438	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4 3/4"	2.278	1.901	1.739	1.523	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5"	2.405	2.008	1.837	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5 1/4"	2.533	2.114	1.934	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5 1/2"	2.661	2.220	2.031	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5 3/4"	2.789	2.327	2.129	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6"	2.916	2.433	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6 1/4"	3.044	2.540	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6 1/2"	3.172	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6 3/4"	3.300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7"	3.427	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7 1/4"	3.555	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Round Tubes—Weights by Inside Diameters

To determine the weight per foot of a tube of a given Inside Diameter—to the weight given for the size and gage by O.D. in the table above, add the weight given below for the corresponding thickness of wall by Stubs Gage. The sum will be the weight in pounds per lineal foot by inside diameter.

Thickness of Wall by Stubs Gage—Pounds to be Added to O. D. Weight

19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
.043	.030	.025	.019	.015	.012	.010	.008	.006	.005	.004	.004	.002	.002	.002	.001	.0006	.0004

Variations from these weights must be expected in practice.



WEIGHTS PER LINEAL FOOT SEAMLESS BRASS AND COPPER PIPE

Stand- ard Pipe Size	Out- side Diam- eter	REGULAR					EXTRA HEAVY				
		Inside Diam.	Wall Thick- ness, Inches	Chase Brass Pipe	Chase Red- Brass Pipe	Chase Copper Pipe	Inside Diam.	Wall Thick- ness, Inches	Chase Brass Pipe	Chase Red- Brass Pipe	Chase Copper Pipe
1/8"	.405	.281	.062	.246	.253	.259	.205	.100	.353	.363	.371
1/4"	.540	.375	.0825	.437	.450	.460	.294	.123	.593	.611	.624
3/8"	.675	.494	.0905	.612	.630	.643	.421	.127	.805	.829	.847
1/2"	.840	.625	.1075	.911	.938	.957	.542	.149	1.19	1.23	1.25
3/4"	1.050	.822	.1140	1.24	1.27	1.30	.736	.157	1.62	1.67	1.71
1"	1.315	1.062	.1265	1.74	1.79	1.83	.951	.182	2.39	2.46	2.51
1 1/4"	1.660	1.368	.1460	2.56	2.63	2.69	1.272	.194	3.30	3.39	3.46
1 1/2"	1.900	1.600	.1500	3.04	3.13	3.20	1.494	.203	3.99	4.10	4.19
2"	2.375	2.062	.1565	4.02	4.14	4.23	1.933	.221	5.51	5.67	5.79
2 1/2"	2.875	2.500	.1875	5.83	6.00	6.14	2.315	.280	8.41	8.66	8.84
3"	3.500	3.062	.2190	8.31	8.56	8.75	2.892	.304	11.24	11.57	11.82
3 1/2"	4.000	3.500	.2500	10.85	11.17	11.41	3.358	.321	13.67	14.07	14.37
4"	4.500	4.000	.2500	12.29	12.66	12.94	3.818	.341	16.41	16.89	17.25
4 1/2"	5.000	4.500	.2500	13.74	14.15	14.46	4.250	.375	20.07	20.66	21.10
5"	5.563	5.062	.2505	15.40	15.85	16.21	4.813	.375	22.52	23.18	23.67
6"	6.625	6.125	.2500	18.44	18.99	19.41	5.750	.437	31.32	32.21	32.93
7"	7.625	7.062	.2815	23.92	24.63	25.17	6.625	.500	41.23	42.43	43.34
8"	8.625	8.000	.3125	30.05	30.95	31.63	7.625	.500	47.02	48.39	49.42
9"	9.625	8.937	.3440	36.94	38.03	38.83	8.625	.500	52.81	54.34	55.56
10"	10.750	10.019	.3655	43.91	45.20	46.22	9.750	.500	59.32	61.05	62.40
11"	11.750	11.000	.3750	49.37	50.81	51.94	....	....	....	....	....
12"	12.750	12.000	.3750	53.71	55.29	56.51	....	....	....	....	....



CHASE COPPER WATER TUBE

Types K, L and M

SIZES		For Underground Services and General Plumbing Purposes with Severe Conditions Used with Sweat or Flared Fittings		For General Plumbing Purposes Used with Sweat or Flared Fittings		For General Plumbing and Heating Purposes, with Normal Water Conditions Used with Sweat Fittings only	
		Type K Hard or Soft		Type L* Hard or Soft		Type M Hard	
Nominal Size Inches	Outside Diameter Inches	Wall Thickness	Pounds Per Ft.	Wall Thickness	Pounds Per Ft.	Wall Thickness	Pounds Per Ft.
1/8"	.250	.032	.085	.025	.068	.025	.068
1/4"	.375	.032	.133	.030	.126	.025	.106
3/8"	.500	.049	.269	.035	.198	.025	.144
1/2"	.625	.049	.344	.040	.285	.028	.203
5/8"	.750	.049	.418	.042	.362	.....	.....
3/4"	.875	.065	.641	.045	.455	.032	.328
1"	1.125	.065	.839	.050	.655	.035	.464
1 1/4"	1.375	.065	1.04	.055	.884	.042	.681
1 1/2"	1.625	.072	1.36	.060	1.14	.049	.94
2"	2.125	.083	2.06	.070	1.75	.058	1.46
2 1/2"	2.625	.095	2.92	.080	2.48	.065	2.03
3"	3.125	.109	4.00	.090	3.33	.072	2.68
3 1/2"	3.625	.120	5.12	.100	4.29	.083	3.58
4"	4.125	.134	6.51	.110	5.38	.095	4.66
5"	5.125	.160	9.67	.125	7.61	.109	6.66
6"	6.125	.192	13.87	.140	10.20	.122	8.91
*8"	8.125	.271	25.90	.200	19.29	.170	16.46

*Present Government Specifications do not include sizes larger than 6" nor the Type L in Soft Temper.



WEIGHTS OF BRASS CIRCLES

In Approximate Pounds Per Circle

Diameter in Inches	Browne & Sharpe's Gage Numbers and Decimal Equivalents												
	No. 30 .0100	No. 28 .0126	No. 26 .0159	No. 24 .0201	No. 22 .0254	No. 20 .0320	No. 18 .0403	No. 16 .0508	No. 14 .0641	No. 12 .0808	No. 10 .1019	No. 8 .1285	No. 6 .162
4"	.0386	.0486	.0613	.0775	.0976	.1235	.1555	.1968	.2469	...	...	...	...
4 1/4"	.0436	.0549	.0692	.0875	.1102	.1394	.1755	.2221	.2787	...	...	...	...
4 1/2"	.0488	.0615	.0776	.0981	.1235	.1562	.1967	.2490	.312	...	...	...	...
4 3/4"	.0544	.0685	.0865	.1093	.1376	.1741	.2192	.2774	.348	...	...	...	...
5"	.0603	.0760	.0958	.1212	.1525	.1929	.2429	.307	.386	...	...	...	...
5 1/4"	.0665	.0837	.1057	.1336	.1681	.2127	.2678	.339	.425	...	...	...	...
5 1/2"	.0729	.0919	.1160	.1466	.1845	.2334	.2939	.372	.467	...	...	...	...
5 3/4"	.0797	.1004	.1268	.1602	.2017	.2551	.321	.407	.510	...	...	...	...
6"	.0868	.1094	.1380	.1745	.2196	.2778	.350	.443	.556	...	...	...	...
6 1/4"	.0942	.1187	.1498	.1893	.2383	.301	.380	.480	.603	...	...	...	...
6 1/2"	.1019	.1284	.1620	.2048	.2577	.326	.411	.520	.652	...	...	...	...
6 3/4"	.1099	.1384	.1747	.2208	.2779	.352	.443	.560	.703	...	...	...	...
7"	.1181	.1489	.1879	.2375	.2989	.378	.476	.603	.756	...	...	...	...
7 1/4"	.1267	.1597	.2015	.2547	.321	.406	.511	.646	.811	...	...	...	...
7 1/2"	.1356	.1709	.2157	.2726	.343	.434	.547	.692	.868	...	...	...	...
7 3/4"	.1448	.1825	.2303	.2911	.366	.463	.584	.739	.927	...	...	...	...
8"	.1543	.1944	.2454	.310	.390	.494	.622	.787	.988	1.250	1.574	...	...
8 1/2"	...	...	.2770	.350	.441	.557	.702	.888	1.115	1.411	1.777	...	...
9"	...	...	.311	.393	.494	.625	.787	.996	1.250	1.582	1.992	...	...
9 1/2"	...	...	.346	.437	.551	.696	.877	1.110	1.393	1.763	2.220	...	...
10"	...	...	.383	.485	.610	.772	.972	1.230	1.543	1.953	2.459	...	...
10 1/2"	...	...	.423	.534	.673	.851	1.071	1.356	1.701	2.153	2.711	...	...
11"	...	...	.464	.586	.738	.934	1.176	1.488	1.867	2.363	2.976	...	...
11 1/2"	...	...	.507	.641	.807	1.020	1.285	1.626	2.041	2.583	3.25	...	...
12"	...	...	.552	.698	.878	1.111	1.399	1.771	2.222	2.812	3.54	...	...
12 1/2"	...	...	.599	.757	.953	1.206	1.518	1.921	2.411	3.05	3.84	...	...
13"	...	...	.648	.819	1.031	1.304	1.642	2.078	2.608	3.30	4.16	...	...
13 1/2"	...	...	.699	.883	1.112	1.406	1.771	2.241	2.812	3.56	4.48	...	...
14"	...	...	.751	.950	1.196	1.512	1.905	2.410	3.02	3.83	4.82	...	...
14 1/2"	...	...	.806	1.019	1.283	1.622	2.043	2.585	3.24	4.11	5.17	...	...
15"	...	...	.863	1.090	1.372	1.738	2.186	2.767	3.47	4.39	5.53	...	...
15 1/2"	...	...	.921	1.164	1.466	1.854	2.335	2.954	3.71	4.69	5.91	...	...
16"	...	...	.981	1.241	1.562	1.975	2.488	3.15	3.95	5.00	6.30	7.78	10.00
17"	...	...	...	...	1.732	2.191	2.759	3.49	4.38	5.54	6.98	8.63	11.09
18"	...	...	...	...	1.976	2.500	3.15	3.98	5.00	6.33	7.97	9.84	12.66
19"	...	...	...	...	2.202	2.785	3.51	4.44	5.57	7.05	8.88	10.97	14.10
20"	...	...	...	...	2.440	3.09	3.89	4.92	6.17	7.81	9.84	12.15	15.62
21"	...	...	...	...	2.690	3.40	4.29	5.42	6.81	8.61	10.85	13.40	17.23
22"	...	...	...	...	2.953	3.73	4.70	5.95	7.47	9.45	11.90	14.70	18.91
23"	...	...	...	...	3.22	4.07	5.13	6.51	8.16	10.33	13.01	16.07	20.66
24"	...	...	...	...	3.51	4.44	5.60	7.08	8.89	11.25	14.17	17.50	22.50

For Weights of Copper Circles add 5% to Above Figures.
 For Weights of Olympic Bronze Circles add 1% to Above Figures.
 See Page 125 for Rules Relative to Circles.



RULES FOR OBTAINING WEIGHTS

Tubing or Pipe (Round)

To obtain the weight in pounds per lineal foot—from the outside diameter in inches—subtract the gage in inches, multiply by the gage in inches, then multiply this by 11.57 for Brass or by 12.17 for Copper.

Rectangular and Triangular Tubing

Add the sides and divide by 3.14 to obtain outside diameter of the relative round, then figure as round tubing.

Half Round and Oval Tubing

Multiply the wider dimensions by 2, add the narrower dimension and divide by 3, to obtain the outside diameters of the relative round, then figure as round tubing.

Square, Hexagon and Octagon Tubing

Use the distance across the flats as the outside diameter and figure as round tubing, for approximate weight.

To obtain the price per foot, multiply the price per pound by the pounds per foot.

Sheet Metal

To obtain the weight in pounds—multiply the width in inches by the length in inches by the gage in inches by .306 for Brass or by .323 for Copper.

Circles

Multiply the square of the diameter by .7854, by the gage in inches, by .306 for Brass or by .323 for Copper.

Angles

Add the 2 sides in inches, deduct the gage in inches, then figure as Sheet Brass or rectangular bar.

Channels

Add the 3 sides in inches, subtract twice the gage in inches then figure as Sheet Brass.

Hexagon and Octagon Rod (approx.)

To figure Hexagon rods multiply weight of round rod of same diameter by 1.1026. Octagon rods multiply by 1.055.

Hexagon and Octagon shapes are always measured across opposite flat sides.

RULES RELATIVE TO CIRCLES

To Find Circumference

Multiply diameter by 3.1416

To Find Diameter

Multiply circumference by 0.3183

To Find the Area of a Circle

Multiply circumference by one-quarter of diameter

Or multiply the square of Dia. by .7854

Or multiply the square of Circumference by .07958

To Find Radius

Multiply circumference by 0.15915

To Find Side of an Inscribed Square

Multiply diameter by 0.7071

Or multiply circumference by 0.2251

To Find Side of an Equal Square

Multiply diameter by 0.8862

Or multiply circumference by 0.2821



CONVERSION AND MISCELLANEOUS TABLES

Decimals and Equivalents in Fractions

Comparison of Wire Gages

Decimal Equiv.	Fractions			
.0156	$\frac{1}{64}$			
.0312		$\frac{1}{32}$		
.0469	$\frac{3}{64}$			
.0625			$\frac{1}{16}$	
.0781	$\frac{5}{64}$			
.0937		$\frac{3}{32}$		
.1094	$\frac{7}{64}$			
.1250			$\frac{1}{8}$	
.1406	$\frac{9}{64}$			
.1562		$\frac{5}{32}$		
.1719	$\frac{11}{64}$			
.1875			$\frac{3}{16}$	
.2031	$\frac{13}{64}$			
.2187		$\frac{7}{32}$		
.2344	$\frac{15}{64}$			
.2500			$\frac{1}{4}$	
.2656	$\frac{17}{64}$			
.2812		$\frac{9}{32}$		
.2969	$\frac{19}{64}$			
.3125			$\frac{5}{16}$	
.3281	$\frac{21}{64}$			
.3437		$\frac{11}{32}$		
.3594	$\frac{23}{64}$			
.3750			$\frac{3}{8}$	
.3906	$\frac{25}{64}$			
.4062		$\frac{13}{32}$		
.4219	$\frac{27}{64}$			
.4375			$\frac{7}{16}$	
.4531	$\frac{29}{64}$			
.4687		$\frac{15}{32}$		
.4844	$\frac{31}{64}$			
.5000			$\frac{1}{2}$	
.5156	$\frac{33}{64}$			
.5312		$\frac{17}{32}$		
.5469	$\frac{35}{64}$			
.5625			$\frac{9}{16}$	
.5781	$\frac{37}{64}$			
.5937		$\frac{19}{32}$		
.6094	$\frac{39}{64}$			
.6250			$\frac{5}{8}$	
.6406	$\frac{41}{64}$			
.6562		$\frac{21}{32}$		
.6719	$\frac{43}{64}$			
.6875			$\frac{11}{16}$	
.7031	$\frac{45}{64}$			
.7187		$\frac{23}{32}$		
.7344	$\frac{47}{64}$			
.7500			$\frac{3}{4}$	
.7656	$\frac{49}{64}$			
.7812		$\frac{25}{32}$		
.7969	$\frac{51}{64}$			
.8125			$\frac{13}{16}$	
.8281	$\frac{53}{64}$			
.8437		$\frac{27}{32}$		
.8594	$\frac{55}{64}$			
.8750			$\frac{7}{8}$	
.8906	$\frac{57}{64}$			
.9062		$\frac{29}{32}$		
.9219	$\frac{59}{64}$			
.9375			$\frac{15}{16}$	
.9531	$\frac{61}{64}$			
.9687		$\frac{31}{32}$		
.9844	$\frac{63}{64}$			
1.0000			1	

Gage No.	American or Brown & Sharpe	Birming- ham or Stubs	Was'n and Moen	Imperial S.W.G.	London or Old English	United States Standard
0000000	.....	.....	.4900	.500	.....	.5000
000000	.5800	.....	.4615	.464	.....	.4688
00000	.5165	.....	.4305	.432	.....	.4375
0000	.4600	.454	.3938	.400	.454	.4063
000	.4096	.425	.3625	.372	.425	.3750
00	.3648	.380	.3310	.348	.380	.3438
0	.3249	.340	.3065	.324	.340	.3125
1	.2893	.300	.2830	.300	.300	.2813
2	.2576	.284	.2625	.276	.284	.2656
3	.2294	.259	.2437	.252	.259	.2500
4	.2043	.238	.2253	.232	.238	.2344
5	.1819	.220	.2070	.212	.220	.2188
6	.1620	.203	.1920	.192	.203	.2031
7	.1443	.180	.1770	.176	.180	.1875
8	.1285	.165	.1620	.160	.165	.1719
9	.1144	.148	.1483	.144	.148	.1563
10	.1019	.134	.1350	.128	.134	.1406
11	.0907	.120	.1205	.116	.120	.1250
12	.0808	.109	.1055	.104	.109	.1094
13	.0720	.095	.0915	.092	.095	.0938
14	.0641	.083	.0800	.080	.083	.0781
15	.0571	.072	.0720	.072	.072	.0730
16	.0508	.065	.0625	.064	.065	.0625
17	.0453	.058	.0540	.056	.058	.0563
18	.0403	.049	.0475	.048	.049	.0500
19	.0359	.042	.0410	.040	.040	.0438
20	.0320	.035	.0348	.036	.035	.0375
21	.0285	.032	.0317	.032	.0315	.0344
22	.0254	.028	.0286	.028	.0295	.0313
23	.0226	.025	.0258	.024	.0270	.0281
24	.0201	.022	.0230	.022	.0250	.0250
25	.0179	.020	.0204	.020	.0230	.0219
26	.0159	.018	.0181	.018	.0205	.0188
27	.0142	.016	.0173	.0164	.0188	.0172
28	.0126	.014	.0162	.0148	.0165	.0156
29	.0113	.013	.0150	.0136	.0155	.0141
30	.0100	.012	.0140	.0124	.0138	.0125
31	.0089	.010	.0132	.0116	.0123	.0109
32	.0080	.009	.0128	.0108	.0113	.0102
33	.0071	.008	.0118	.0100	.0103	.0094
34	.0063	.007	.0104	.0092	.0095	.0086
35	.0056	.005	.0095	.0084	.0090	.0078
36	.0050	.004	.0090	.0076	.0075	.0070
37	.0045	.....	.0085	.0068	.0065	.0066
38	.0040	.....	.0080	.0060	.0058	.0063
39	.0035	.....	.0075	.0052	.0050	.....
40	.0031	.....	.0070	.0048	.0045	.....
41	.0028	.....	.0066	.0044	.....	.....
42	.0025	.....	.0062	.0040	.....	.....
43	.0022	.....	.0060	.0036	.....	.....
44	.0020	.....	.0058	.0032	.....	.....
45	.0018	.....	.0055	.0029	.....	.....
46	.0016	.....	.0052	.0024	.....	.....
47	.0014	.....	.0050	.0020	.....	.....
48	.0012	.....	.0048	.0016	.....	.....
49	.0011	.....	.0046	.0012	.....	.....
50	.0010	.....	.0044	.0010	.....	.....



CONVERSION AND MISCELLANEOUS TABLES

AREAS OF CIRCLES

Diameter	0 in.	1 in.	2 in.	3 in.	4 in.	5 in.	6 in.	7 in.	8 in.	9 in.	10 in.	11 in.
0 ft.	.0000	.0055	.0218	.0491	.0873	.1364	.1964	.2670	.3491	.4418	.5454	.6600
1 "	.7854	.922	1.07	1.23	1.40	1.58	1.77	1.97	2.18	2.41	2.64	2.89
2 "	3.14	3.41	3.69	3.98	4.28	4.59	4.91	5.24	5.59	5.94	6.30	6.68
3 "	7.07	7.47	7.88	8.30	8.73	9.17	9.62	10.08	10.56	11.04	11.54	12.05
4 "	12.57	13.10	13.64	14.19	14.75	15.32	15.90	16.50	17.10	17.72	18.35	18.99
5 "	19.64	20.29	20.97	21.65	22.34	23.04	23.76	24.48	25.20	25.97	26.73	27.49
6 "	28.27	29.07	29.87	30.68	31.50	32.34	33.18	34.04	34.91	35.78	36.67	37.57
7 "	38.48	39.41	40.34	41.28	42.24	43.20	44.18	45.17	46.16	47.17	48.19	49.22
8 "	50.27	51.32	52.38	53.46	54.54	55.64	56.75	57.86	58.99	60.13	61.28	62.44
9 "	63.62	64.80	66.00	67.20	68.42	69.64	70.88	72.13	73.39	74.66	75.94	77.24
10 "	78.54	79.85	81.18	82.52	83.86	85.22	86.59	87.97	89.36	90.76	92.18	93.60

Note—To find the area of a given circle, use the figures at the intersection of the columns (representing feet and inches) which when combined, equal the diameter of the circle.

WEIGHTS AND MEASURES

Metric and English

Length

1 mil	Equals .001	inch
"	.025400	millimeters
"	.0025400	centimeters
1 inch	1000	mils
"	25.400	millimeters
"	2.5400	centimeters
1 foot	30.480	centimeters
"	.30480	meters
1 yard	91.440	centimeters
"	.9144	meters
1 mile	1609.4	meters
"	1.6094	kilometers
1 millimeter	39.370	mils
"	.039370	inches
1 centimeter	.39370	inches
"	.032808	foot
1 meter	39.370	inches
"	3.2808	feet
1 kilometer	3280.8	feet
"	.62137	mile

Surface

1 circ. mil	Equals .78540	square mils
"	.000001	circ. inch
"	.00064516	circ. millimeter
1 square mil	1.2732	circ. mils
"	.000001	square inch
"	.00064516	sq. millimeter
1 circ. inch	1000000	circ. mils
"	645.16	circ. millimeters
"	6.4516	circ. centimeters
1 square inch	1000000	square mils
"	1273240	circ. mils
"	645.16	sq. millimeters
"	6.4516	sq. centimeters
1 square foot	929.03	sq. centimeters
1 circ. millimeter	1550.0	circ. mils
1 circ. centimeter	155000	circ. mils
1 circ. centimeter	.15500	circ. inch
1 square millimeter	1973.5	circ. mils
"	.0015500	square inch
1 square centimeter	197352	circ. mils
"	.15500	square inch

Volume

1 cubic inch	Equals 16.387	cu. centimeters
1 cubic foot	28317	cu. centimeters
1 cubic centimeter	.061023	cu. inch

Weight

1 pound (avoir.)	Equals 453.59	grams
1 gram	.0022046	pounds (avoir.)
1 kilogram	2.2046	pounds (avoir.)



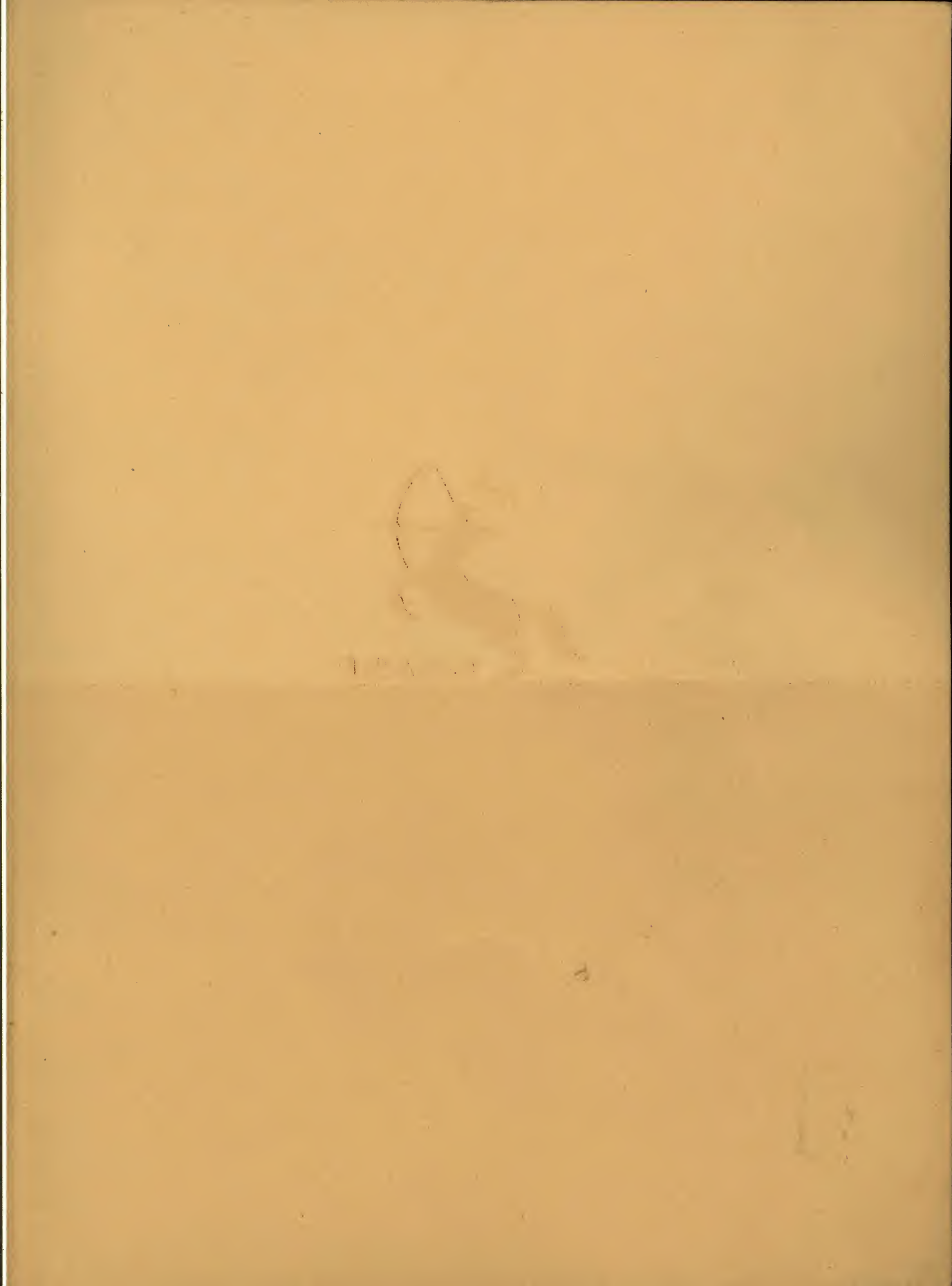
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WATERBURY, CONNECTICUT

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